REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

FOR THE YEAR

1955

BY

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CONTENTS

	Page
List of Special Graphs	
List of Tables in Statistical Appendix	
Preface	i-xxv
Vital Statistics	1
Maternity and Child Welfare	5
Midwifery Service	13
District Nursing	20
Home Help Service	23
Health Education	25
Infectious Diseases	28
Immunisation and Vaccination	47
Tuberculosis	50
V.D. Welfare	61
Mental Health	64
Ambulance Service	75
Welfare Services	79
Housing Points Scheme	94
Sanitary Administration	96
Slum Clearance	104
Atmospheric Pollution	129
Supervision of Food Supply	143
Food Hygiene	157
Disinfection and Disinfestation	166
Civil Defence	172
Cremation	173
Water Supply	174
Report of City Bacteriologist	175
Index	
Statistical Appendix	

LIST OF SPECIAL GRAPHS

Subject *facing p*

Map of Liverpool Showing Vital Statistics in the Various City Wards ... ...

Births, 1938-1955 ... ...

Stillbirths, 1938-1955 ... ...

Principal Causes of Infant Mortality, 1955 ... ...

Trends of Mortality, Liverpool, 1938-1955. (3 Graphs) ...

Trends of Mortality, Liverpool, 1945-1955 ... ...

Tuberculosis, Mortality and Morbidity, 1945-1955 ... ...

City of Liverpool Ambulance Service—
Patient Removals, 1948-1955 ... ...

Analysis of matter collected in Standard Deposit Gauge, Oxford Street ... ...

Graph showing Total Deaths occurring in Liverpool and Number of Cremations taking place at Liverpool Crematorium during Years 1934-1955 ... ...

LIST OF TABLES IN THE STATISTICAL APPENDIX.

able No.	*Subject*
1	Birth Statistics.
2	Analysis of causes of Infant Mortality.
3	Analysis of causes of Mortality.
4	Deaths from Cancer.
5	Maternal Mortality.
6	District Work of the Health Visitors.
7	Attendance at Ante-natal and Child Welfare Clinics.
8	Neo-natal Deaths.
9	Deaths due to Pregnancy and Childbearing.
10	Deaths due to Pregnancy and Childbearing.
11	Deaths due to Associated Conditions.
12	Neo-natal Deaths—Ante-natal Care.
13	Stillbirths—Delivery of Cases.
14	Causes of Stillbirth—International Classification.
15	Midwives engaged in Domiciliary and Institutional Practice at the end of the year.
16	Analysis of Confinements.
17	Analgesia.
18	Home Nursing Equipment—Annual Loans.
19	District Nurses—Visits to Cases.
20	District Nursing—Minor Ailment Clinics.
21	Cases of Certain Infectious Diseases reported during 1955.
22	Food Poisoning.
23	New Cases of Tuberculosis for 1955.
24	Age periods of deaths from Tuberculosis during 1955.
25	Deaths from Respiratory Tuberculosis during past ten years.
26	Deaths from Non-respiratory Tuberculosis during past ten years.
27	Analysis of Tuberculosis Cases.
28	Analysis of Non-notified Tuberculosis Cases.
29	Venereal Disease—Contact Notification Statistics.
30	Venereal Disease—Results of Correspondence.
31	Venereal Disease—Results of Home Visiting.
32	Venereal Disease—Ante-natal Clinic References.
33	Residential Accommodation—Aged Persons.
34	Particulars of Admissions to Residential Accommodation.
35	Liverpool Residential Establishments—Admissions, Discharges and Deaths.
36	Temporary Accommodation provided under Section 21 (1) (b) of the National Assistance Act.
37	Welfare Visitors.
38	Registered Blind Persons.
39	Registered Partially-sighted Persons.

LIST OF TABLES IN THE STATISTICAL APPENDIX—*continued.*

Table No.	*Subject*
40	Follow-up of Registered Blind and Partially-sighted Persons.
41	Handicapped Persons Maintained in Establishments Provided Voluntary Organisations—Admissions, Discharges and Deaths.
42	Housing Points Scheme—Awarding of Points.
43	Housing Points Scheme—Tuberculosis Cases dealt with.
44	Slum Clearance—Compulsory Purchase Orders and Clearance Orde confirmed in 1955.
45	Slum Clearance—(*continued.*)
46	Clearance Areas in Abeyance.
47	Progressive Summary of Slum Clearance.
48	Types of Food Premises.
49	Shop Inspection during 1955.
50	Factory Inspection.
51	Summary of Defects Found.
52	Outworkers.
53	Summary of Prosecutions.
54	Rat Destruction in Sewers—Summary of Treatments.
55	Rat Destruction in Sewers—Annual Test Baiting.
56	Summary of Rodent Infestations of Buildings and Lands during 19
57	Smoke Abatement—Statistics of Inspections and Contraventions.
58	Smoke Abatement—Statistics relating to Improvements and Progr in the Proposed Smokeless Area.
59	Meteorological Summary for 1955.
60	Miscellaneous Statistics—Area of City—Number of Inhabited House Rateable Value—Penny Rate.
61	Vital Statistics of a number of Larger Authorities.
62	Notifiable Diseases (Other than Tuberculosis).
63	Infant Mortality.
64	Deaths Registered.

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My Lord Mayor, Ladies and Gentlemen,

I have the honour to submit my fourth Report on the health of the City of Liverpool. After some severe cold in the early part of the year, 1955 will be remembered for the long and brilliant summer weather. The month of July was, in fact, the sunniest month ever recorded at the Observatory at Bidston. Although this fine summer is not reflected to any extent in the vital statistics, its effects were generally enjoyed and appreciated.

An important departmental event during the year was the passage through Parliament of the Liverpool Corporation Act, 1955. This enactment contained many public health sections.

The building of the new offices for the Health Department in Hatton Garden was started during the year and is progressing. It is hoped that by March 1957 the public health services will occupy for the first time in the City's history, a central headquarters adequate and able to cope with the multiplicity of health and welfare activities for which this department is responsible.

Vital Statistics.

Vital Statistics

During the year there has been a continued slight reduction in the birth rate to 19·6 per 1,000. The stillbirth rate has increased from 24 to 26 per 1,000 total birth registered, and there has also been an increase in the general death rate from 11·4 to 11·9. When, however, the detailed causes of deaths are examined, a number of encouraging factors can be noted.

The deaths from tuberculosis have shown a further substantial fall to 204, compared with 244 in 1954.

There has also been an encouraging further reduction in the infant mortality rate, which was 30 per 1,000 live births.

The unexpected fall in the lung cancer death rate which was recorded last year has not continued, and 408 deaths from this cause were recorded during 1955. This figure is, however, still below the high peak reached in 1953 of 432.

An innovation in this Report is the map (Page 1) showing the vital statistics in the various City Wards.

Maternity and Child Welfare

The year has seen a continual fall in the attendances at ante-natal clinics, and the number of women going to the ante-natal clinics has now fallen from 4,534 in 1954 to 3,575 in 1955. This is, to a considerable extent, due to the increase in hospital confinements, and the practice in Liverpool for the hospitals to invite the general practitioners to provide the ante-natal care. As a result, a number of practitioners now conduct a weekly ante-natal clinic for their own patients. On the other hand some do not, and expectant mothers attend at ordinary surgery times. There is still much scope for mothercraft education and a more satisfactory hospital, general practitioner, local health authority clinic co-ordinated service would be to the advantage of the expectant mother. The total number of attendances in infants between 0-5 years of age at Welfare Centres has increased a little during the year.

The new clinics at present being situate temporarily in council houses in Speke and Croxteth have become more popular during the year, and extra sessions have been necessary to relieve the congestion.

It is satisfactory to record that the new housing estates are now being adequately served by child welfare clinics, although the present temporary buildings are not really suitable, and the newly-planned clinics will provide a much better type of service when they are built.

During the year, a start was made to encourage all mothers attending ante-natal clinics to have a miniature chest X-ray carried out by the Mass Radiography Unit, and 973 mothers took advantage of these arrangements. There is no doubt that such routine examination is most desirable and should help considerably in the prevention of tuberculosis.

Welfare Foods

This has been the first full year in which the local health authority have been entirely responsible for the distribution of welfare foods, and the arrangements are now well established for their distribution from 21 infant welfare centres, and seven other centres within the city.

Reference was made in the last annual report to the important part which the care of premature babies was likely to play in further

reducing infant mortality. During the year, there was a further fall in the Infant Mortality Rate to 30 per 1,000 live births. At the same time, a start was made to introduce a special care service at home for premature babies between 4 and 5½ lbs. It had been hoped to recruit two experienced midwives specially trained in this problem, but owing to a shortage of staff, only one midwife was appointed. She, has, however, been able to make a start with what will be a valuable service for this particularly vulnerable group of children.

A good working arrangement has now been established with one of the large children's hospitals in the City for the supply of human milk to the breast milk bank in that hospital. During the year over 7,330 ozs. were collected from domiciliary midwifery cases and transferred to the breast milk bank. In return, arrangements were made for human milk to be available for premature babies and other weakly infants requiring it at home.

Co-operation of Health Visitors and Hospitals

Considerable improvements have been made in the working liaison between the health visitors and the hospitals, particularly the children's hospitals. A welcome invitation was received for the health visitors to attend out-patient clinics and now ten health visitors pay weekly visits to all three children's hospitals within the City.

These arrangements have added to the usefulness of the child health services as a whole, and together with the arrangements already referred to in respect of the milk bank, give a good example of the type of co-operation and liaison which is to be desired. It has already been noticed that both health visitors and hospital staffs are getting to know each other better, and to understand each other's activities more completely.

Arrangements were made towards the end of the year for a special health visitor to be appointed to look after the domiciliary care of diabetic patients. This, too, is a step forward, as it should materially help to reduce the danger of a relapse in patients who are unable to follow an adequate diet regime at home. The special health visitor attends the out-patient diabetic clinic at the David Lewis Northern Hospital and works under the close day-to-day supervision of the physician there, rather as the tuberculosis visitors work with the chest physicians.

Psychiatric Clinic

For some time it has been felt that there is a real need to start a system of preventive mental health in the child welfare clinics. Arrangements were made with Dr. Bryan, Psychiatrist to Alder Hey Hospital, for him to attend once a month at child welfare clinics to discuss with the doctors, health visitors, and other staff, the problems of difficult children. It is hoped that gradually a new approach will be developed by all those associated with child welfare clinics, so that they will consider the preventive aspects of mental illness and mental health in the same way as at present they consider physical illness and physical ill-health. It is too early yet to assess the success of this venture, but great interest has been shown by the staff in this innovation.

Midwifery Service

4,700 women were delivered in their homes within the City during the year. The average case load for the domiciliary midwives has now been reduced to 70 per year. All are trained in the use of gas and air analgesia, and it is satisfactory to report that gas/air analgesia was administered to 3,088 domiciliary midwifery cases, compared with 2,083 in the previous year. There was also an increase in the proportion of women receiving pethidine.

Co-operation with Practitioners

Further progress has been made in the co-operation between the staff and general practitioners. At present, 31 groups of general practitioners in the City have arranged for midwives to attend their antenatal clinics and sessions, which enables the midwife and the doctor to examine the patient together. In many cases, on the doctor's instructions, the midwives themselves carry out intermediate examinations, and this type of co-operation has been appreciated by both doctors and midwives. A special rota has been worked out so that all midwives have an opportunity of attending these clinics, and as they work in groups of 2-4 midwives, they are therefore enabled to see some of their partners' patients with the doctors, and if, later, they have to deliver the patient in an emergency in the absence of the usual midwife, they are already familiar with the case. In addition, the special meetings started in 1954 were continued this year between the general practitioners and the public health staff at the child welfare clinics. These gatherings have continued to be a great success, and have undoubtedly helped to create a better understanding between the general practitioners and the health visitors.

The 14 local authority day nurseries, with a total of 788 places, have continued to provide a helpful service for the social case in which the mother, for some reason or other, has to go out to work. Due to various delays, work on the new Shaw Street Day Nursery has not yet commenced, and the urgency of this nursery to replace the out-of-date ones at Mill Road and Salisbury Street is now very great. A sharp outbreak of Sonne dysentery in Mill Road emphasised many of the most unsatisfactory features of this nursery.

Home Nursing Equipment

A marked increase has continued in the demand and issue of special equipment for nursing at home, and during the year the total number of items issued on loan rose to 1,948, compared with 1,374 in 1954. The rapid growth of this service is demonstrated when it is recalled that during 1952 only 368 items were issued on loan. There has, therefore, been in the past four years an increase of five times in the amount of equipment issued.

District Nurses

The Queen Victoria District Nursing Association has continued to act on an agency basis in the City, providing the home nursing. There has been a steady increase in the amount of work which has been undertaken in home nursing, and the growing importance of the aged sick at home is demonstrated when it is recorded that 7,201 patients visited were over 65 years of age, and a total number of 178,646 visits were paid to people over 65. This is an increase of over 12,000 visits compared with the previous year, and a substantial increase compared with the total number of visits of 107,680, paid during 1953. This geriatric nursing service has continued to be of great help, particularly to the frail old person at home, and has continued to assist in the patient remaining at home.

The giving of injections by district nurses has continued to play an important part in the work of home nursing, and a total number of 74,667 injections of insulin were given, 86,781 of penicillin, and 40,688 of streptomycin, together with over 77,000 of other types of injections during the year.

Mention is made in the report of the mobile physiotherapy service, which is run by the Queen Victoria District Nursing Association, although this service is outside the scope of that provided by the local

health authority. Records of the work of the service are, however, included, as it is known that it has been of value, particularly to many aged people living in their own homes.

Home Help Service

During the year the home help service steadily developed and provided services for 2,073 families compared with 1,807 households helped in 1954. A special reference is made in the report to the chronic sick problem, and the way the home help service can help. It has been found that if this type of patient can be visited for even only two hours a day to light fires and prepare meals, it may be possible to keep the patient at home indefinitely. Such assistance is, of course, far more satisfactory and cheaper than looking after such cases either in special hostels or hospitals.

There was a difficulty experienced during the year in obtaining enough home helps, which was mainly due to being unable to recruit enough women of the right type. Many of the families helped have been aged people, and it has been found that if they are helped for about four hours per week, many very frail aged people can remain quite satisfactorily at home.

New assessment rates were introduced during 1955, and these have helped considerably to make the service more readily available to those groups who mostly need this type of help.

Immunisation and Vaccination

The level of diphtheria immunisation within the City has remained fairly constant, and in particular the number of primary inoculations carried out in children under one year of age has risen from 3,286 in 1954 to 3,945 in 1955.

The total number of primary inoculations carried out in these two years in children aged 0-5 years has risen from 6,142 in 1954 to 6,635 in 1955. This trend is essential if freedom from diphtheria is to be maintained.

Whooping Cough Immunisation

During the year whooping cough immunisation was continued and the whooping cough trial ended. Arrangements were made towards the end of the year to introduce a combined inoculation for both diphtheria and whooping cough so that the number of injections shall be reduced to a minimum.

The total number of vaccinations had fallen sharply in 1954, and during 1955 a special effort was made to improve the percentage of children receiving primary vaccinations against smallpox. It is encouraging to record that these efforts have resulted in the total number of vaccinations carried out during the year increasing from 7,229 in 1954 to 7,881 in 1955. In a great seaport such as Liverpool, it is most important to maintain as high a level of primary vaccinations as possible. **Vaccination**

There was no serious epidemic of infectious diseases in the City throughout the year. The general level of infection remained very much the same as previously, although there was a marked increase in both Sonne dysentery and food poisoning. **Infectious Diseases**

Typhoid and Enteric Fever.

Two cases of typhoid fever occurred, both in persons who had contracted the infection abroad. Three cases of paratyphoid fever occurred, but the source of infection was not discovered.

Poliomyelitis.

There were 46 confirmed cases of poliomyelitis during the year, which represented a considerably lower level of infection in the City, compared with the country as a whole. The occurrence of 3 cases of poliomyelitis in the same family is described in detail in the report. Multiple cases of poliomyelitis in the same family are not usual, although multiple family infection is, of course, quite common.

Food Poisoning.

Details of numerous outbreaks of food poisoning within the City are given in the text of the annual report. The descriptions in each case are interesting, as they showed that many similar mistakes were made in food establishments and homes which had been largely responsible for the infection. The most common mistakes included the preparation of foodstuffs and then the storing of them in warm conditions until the following day. That common foodstuffs can be involved will be seen from the incrimination of new potatoes in one outbreak, bread sauce in another outbreak, and apple puree in a third occurrence. Various food poisoning cases with *Salmonella* organisms are described in detail, and of these a small epidemic of *Salmonella stanley* food

poisoning in a hospital is of great interest. Troublesome dysentery outbreaks which were investigated included one affecting a day nursery, another a children's hospital, a third a residential nursery, and finally one attacking a section of Westminster House.

During the year the methods of investigating these outbreaks have been revised, and many more stool examinations are now being taken of all contacts of cases. This extra drive has undoubtedly been responsible for these outbreaks being controlled much more quickly than would otherwise have been possible.

Research

During the year the serious problem of contamination of imported Chinese egg albumen with *Salmonella* organisms was defined both in the City and throughout the country. As this product is imported in large quantities through the port of Liverpool, special investigations were undertaken in conjunction with a local firm to see whether a method of prevention could be found. After about six months of experiments a satisfactory long-term method of heat-treatment was perfected and details of this were published in the *Lancet*, January, 1956.

Tuberculosis

The number of new cases of tuberculosis occurring in the City fell further during the year. The number of deaths likewise continued to fall. It is, however, important to realise that due to the changing picture of this disease, created mainly by the introduction of antibiotics and chemo-therapy, the position has almost been reached now when death rates from tuberculosis no longer are of much value in assessing the magnitude of the problem at present within the City. There is now a need to define the problems of tuberculosis in Liverpool in an entirely different way.

The total number of notifications gives a crude picture of the total problem, but even the sub-division of respiratory and non-respiratory cases has largely lost its significance. With the almost complete eradication of tuberculosis infection in milk by pasteurisation and the attested herd scheme, all but a very few non-respiratory cases of tuberculosis are today contracted from a human source, in exactly the same way as respiratory tuberculosis.

Methods of Notification

What is required today is much more detailed information regarding the type of illness occurring, and this information should contain, if

possible, a brief description of the extent of the disease in the lungs. This information should be collected in addition to the age, sex, occupation, method of diagnosis, race and district in which the patient lives. In other words, it would now seem most desirable that the notification register should become a wide source of information, so that the changing pattern of the disease can be collated and compared from district to district and from year to year.

To be of any real value, this information must be readily available for quick analysis, and this can only be achieved when modern statistical methods are used for the coding of the data collected.

During the year, the first important steps were taken to carry this out, when a sound statistical system was laid down. It is not expected that all the benefits of this change will be seen immediately, but it should be possible soon to define the exact problems in each part of the City, and also to compare the efficiency of the various preventive steps taken.

Tuberculosis Staff Changes

The staff of the tuberculosis care and after-care section of the department has been considerably strengthened throughout the year, and the changes mentioned in last year's annual report have been carried out. A full-time assistant medical officer of health has been appointed, and eight further tuberculosis visitors engaged, bringing the total complement of visitors now to 18, and the case load of each visitor to just under 500. This has provided the foundation upon which the preventive service should be able to meet the challenge of the problem of tuberculosis within the City.

The task of transcribing all the cases on the register has been completed, and arrangements made for regular visiting of every person on the register either at two-monthly or six-monthly intervals. This more efficient system has led to a few gaps and limitations of the service, and a period of consolidation will be necessary to allow adjustments to take place.

Employment Difficulties of the ex-tuberculous Patient

In his report from his Chest Clinic, Dr. Osborne Hughes speaks of some of the difficulties encountered in finding employment for ex-patients, especially for men over 40 years of age. The arbitrary division of the health services in respect of tuberculosis has often been criticised

in the past eight years, but it is also important to realise that there are further difficulties created by the separate arrangements made by the Ministry of Labour in respect of employment problems for ex-tuberculosis patients. The appointment of more visitors and of a full-time assistant medical officer of health who regularly can visit chest physicians in the clinics and maintain a working liaison with the Disablement Resettlement Officer of the Ministry of Labour will reduce further the difficulties of administration. It is hoped to foster the individual approach between the tuberculosis visitors and the disablement resettlement officer, so that both can meet occasionally to help each other with difficult cases. It is felt that much of the resistance shown to the ex-tuberculosis patient is caused mainly by ignorance, which is often more widespread than is realised. It is clear that the certain way to overcome this is for workers in different fields to meet each other occasionally and so learn more of each other's problems.

Garden Shelters

During the year, money was available for the erection, if necessary, of one dozen garden shelters, to help in the segregation of tuberculosis patients. However, it was found that due to the limitations of either the patients themselves, or of their surroundings, in only one instance was it possible to provide such a shelter. It would, therefore, seem that there is little scope in a large industrial city such as Liverpool for segregation by this means.

B.C.G. Vaccination

The scheme for the vaccination of school leavers has continued satisfactorily throughout the year, and a total of 10,580 children were offered the facilities of the scheme. 7,806, or 73·8 per cent accepted, and Mantoux tests on these children showed that 27·9 per cent of schoolchildren aged 13 were already Mantoux positive, or had already been in contact with the tuberculosis bacillus. This is a considerable reduction from the figure of 34 per cent recorded last year, and it is not yet certain whether this reduction will be maintained.

Towards the end of the year, arrangements were made to commence a scheme for offering B.C.G. vaccination to newly-born infants of normal parents in one of the maternity hospitals in the City. It is not yet certain how successful such a scheme will be, but the findings will be reported in full in subsequent annual reports.

Mass Radiography

A short report is included concerning the work of the Mass Radiography Unit of the Regional Hospital Board. During the year, these units have been of great assistance in helping to examine all contacts of cases occurring in institutions, old people's homes, schools, etc. The ready help and co-operation afforded by the Regional Hospital Board in this matter has been greatly appreciated.

Venereal Disease After-care

In this year's annual report, a larger section is given to the description of some of the work which is undertaken in the City in respect of venereal disease prevention and after-care. It is satisfactory to note that, in addition to the after-care work carried out, it was found possible in a few cases to undertake valuable general rehabilitation of patients.

Attempts are made today to ensure that all women attending antenatal clinics have a specimen of their blood examined both for Rh factors, and to make quite certain that no latent venereal disease is overlooked. By this means, 11 cases were found of latent syphilis, and in only four instances had the patients received any treatment. This work represents most valuable preventive medicine, for the discovery of these cases has meant not only the prevention of possible congenital infections in the babies subsequently born, but also has resulted in the woman receiving adequate treatment for the condition, which should prevent further unnecessary ill-health.

Mental Health

In the mental health section of this report, further mention is made of the continued increase in the after-care work. This portion of the work was dealt with in detail in the last annual report, and has continued to be of great value. Mention has already been made under the child welfare section of the new preventive clinic held by Dr. Bryan, to encourage more preventive mental health being carried out in child welfare clinics, and the senior assistant for mental health has been amongst the doctors attending this important session.

The work of the special employment officer of the department has continued to be of great value during the year, and details are given in the report of the type of case which he has been able to help.

The 13,040 cases of mental illness referred to the mental health section during the year was the largest number ever recorded since the section came into service. The new arrangements made for the admission of

urgent cases, whereby they are all admitted to Sefton General Hospital, has worked most satisfactorily throughout the year, and has enabled the section to deal with this increased work.

It has been necessary to provide special arrangements during the year to cover night duty, and now any duly authorised officer on call at night is excused work the subsequent day.

Evidence was given during the year at the Royal Commission on the Law Relating to Mental Illness and Mental Deficiency, and representatives of the Health Committee, the Medical Officer of Health, and other officers appeared before the Commission in March. Details are given of the evidence which was then submitted. It will be noted that this laid emphasis on the important principle that the freedom of the subject must be maintained at all costs, and that the present judicial system has much to recommend it in this respect, and that it would be unwise to supersede this by purely medical considerations.

Mental Deficiency

In the body of the report mention is made of the confusion which is sometimes present in parents' minds regarding the methods of ascertainment of mental defectives. The booklet published last year has helped considerably, but there is also a great need to deal with this problem on the individual level wherever possible. It is, of course, most important that parents should understand the principles of ascertainment, and during the year various meetings have been held by officials and various voluntary societies for parents of mentally defective children to explain these facts.

Occupation Centre attendances have continued to rise, and are at present higher than ever. Unfortunately, it has been impossible to find suitable premises for the establishment of an industrial centre for adult boys.

Institutional Accommodation

Reference has been made monotonously in previous annual reports to the ever-increasing problem created by lack of mental defective accommodation, particularly for the worst-grade cases. During the year, the position further deteriorated, and after various meetings between the local authority and the Regional Hospital Board, it was agreed that a state of acute emergency existed. The Regional Hospital Board invited the local health authority to suggest methods of overcoming this

emergency. The authority did this, and particularly suggested that the accommodation recently vacated at Olive Mount Hospital should be utilised for the accommodation of mental defectives. There was, however, a difference of opinion between the Board and the local authority as to the suitability of these premises, and arrangements were made for a deputation to go to the Ministry of Health in the new year. It may be felt that the constant repetition of the acute problems created by the shortage of institutional beds has dulled the picture. However, examination of individual cases leaves no doubt in my mind of the tremendous amount of human suffering caused by the inability of the Regional Hospital Board to accommodate these defectives. A few typical cases are mentioned in the text. The problems created by trying to look after a low-grade defective are immense, and it is usual for the whole of the family to be affected.

This, perhaps, is one of the most serious effects of a mental defective being wrongly maintained at home, for not only are the lives of parents made a misery, but the lives of the other normal children are seriously jeopardised by the problems created by the one defective child. Today this remains one of the most acute problems facing the health services of Liverpool.

Short-term Care

In an attempt to ease some of the burden placed by the Regional Hospital Board on parents by their inability to take mental defectives, admissions to either voluntary homes or hospitals on a short-term basis have increased as far as possible.

In particular, admissions to voluntary homes have been more than doubled and a total of 118 weeks' stay were arranged. This necessitated the total cost to the City rising from £281 in 1954 to £724 in 1955.

Ambulance Section

The steady increase in the number of patients being moved by ambulance continued during the year, and 11,979 extra patients were carried, or an increase of 5·99 per cent. It is significant to realise that not only is there no evidence yet of any reduction in the use of the ambulance service, but that the opposite is occurring, and the increases are getting larger. In 1953, the increased number of patients over the previous year was 3,314, in 1954 it was 10,676, and in 1955 had risen to 11,939. All these increases would appear to have been explained by the greater use of ambulance transport for out-patient departments of

hospitals. It will be realised that these continued increases have added greatly to the difficulties of the service, and at times it has been impossible to avoid long delays in the collection of non-urgent patients, particularly in the return of patients from out-patient departments.

The use of radio-telephony has been extended, and this has helped to ease the problem.

There has actually been a decrease in the petrol used, which has resulted in the greater use of the more economical sitting-case car to pick up and carry the outpatient case.

During the year the fleet was increased by four sitting-case ambulances and five extra saloon cars.

It would be re-assuring to know that the use of the ambulance service was diminishing and not increasing, but there are, as yet, no indications whatever that this position has been reached; in fact, the most recent returns to hand show that the upward trend is still continuing.

Civil Defence

The Department is responsible for three sections of the Civil Defence Corps, namely, Ambulance and Casualty collecting, Rest Centres, and Shelter Welfare. These comprise a collective strength of over 2,000 volunteers, of whom roughly 500 are fully trained. Various courses of instruction for the remaining personnel are carried on throughout the year.

Health Education

In 1955 the scope of health education undertaken by the department has considerably widened. In addition to the usual individual health education carried on by the various public health workers, two exhibitions were held, one at the Liverpool Show, and the other on the subject of "You versus Pests", in November.

Both were successful and invoked a great deal of interest. It is hoped that it will be possible to exhibit at each Liverpool Show, and that then one or two different subjects illustrating the work of the public health department will be dealt with each year.

Welfare Services

Reference was made in the last annual report to the decision during the year of the City Council in principle to build one new hostel each year for the next five years. The urgency of more residential accom

modation to be made readily available for welfare services has become more apparent as the waiting list for accommodation has more than doubled this year. At the start of the year there were 88 persons on the list, but this had risen to 177 at the end of the year.

Steps have been taken, however, to make a start to provide more residential accommodation, and the new hostel for 57 persons in Croxteth Estate has been commenced and progress is continuing satisfactorily.

A start was also made in the adaptation of Croxteth Lodge, Ullet Road, which will eventually accommodate 31 persons. In addition, Derby Home has been purchased from the Queen Victoria District Nursing Association, and adaptations for conversion of this home to accommodate 17 persons in the first instance have been planned, together with an extension to be built alongside the home to house a further 22 persons.

Towards the end of the year, the Estate Committee transferred to the Health Committee another large house in Ullet Road, which after necessary adaptations will accommodate a further 27 persons.

Although these extensions will greatly relieve the pressure on the waiting list, it must always be remembered that the urgent programme of up-grading Westminster House which is going on simultaneously will require in the end accommodation for at least 250 old people.

Upgrading of Westminster House

The programme for up-grading of Westminster House has continued steadily throughout the year. The large central hall has been redecorated throughout; and the wooden pews have been replaced by suitable chairs. The first house under the new regime was opened during the year (House 11) and the standard of accommodation provided there has proved most satisfactory, particularly for frail ambulant old persons.

It has been very noticeable that many visitors viewing the new accommodation for the first time have found it difficult to believe that they were in Westminster House. The new changes have had the refreshing effect of stimulating the staff to take a new sense of pride in their surroundings and in their charges, and there is no doubt that these changes when completed will have the desired effect of completely changing the character of this old accommodation.

The conversion of House No. 2 was also started, and was well under way by the end of the year, and plans were complete for the further relief of Houses 3 and 4.

Medical liaison with the geriatric hospitals has continued on a very satisfactory level throughout the year, and this has been helped by the kind offer of Dr. Robert Kemp to come and meet the doctors in the sick bay once a week to ensure that no patients are being kept in the sick bay for a longer period than is desirable. Dr. Kemp has contributed a report on the problem of aged persons on page 91.

Hostels

The standard of accommodation has been maintained in all the hostels, and it has been noticed that the scheme for the provision of books from public libraries, which was introduced last year, has been greatly appreciated. Due to the generosity of the Merseyside Hospitals Council, 6 further television sets were installed in these hostels, and now this amenity is available to all the residential establishments looking after aged persons in the City. In addition, a broadcast line was installed at New Grafton House to enable the residents to hear commentaries on suitable matches from the grounds of the Liverpool and Everton Football Clubs, and this service has proved very popular.

Temporary Accommodation

Although the figures for temporary accommodation were lower at the end of the year than at the start, there was a time during the middle of the year when they rose to the region of about 90, although the average monthly figure has been about 70. Various individual difficulties have occurred during the year, but the special Liaison Committee of the Health Committee has been successful in keeping all problems within reasonable limits, and it is pleasing to report that at the end of what could have been a rather difficult year in respect of temporary accommodation, the position was satisfactory.

Domiciliary Welfare Services

In the body of the report, further examples are given of the type of problems which the welfare visitors have met during the year. The number of cases in which action under Section 47 of the National Assistance Act has been taken has risen during the year, and it was necessary to remove compulsorily 12 persons.

River View Rest Centre

This highly successful venture has continued to go from success to success, and the average daily figure of old people attending during the year was about 200, although during some days of the year over 300 persons attended.

The arrangements made for the use of 100, Walton Village have continued most satisfactorily throughout the year, and have met many of the needs of the five separate voluntary organisations for handicapped persons.

Blind Welfare

The year has seen the continued emphasis in blind welfare being placed upon open industry rather than sheltered workshops, and it is a pleasure to acknowledge the valuable work of the Blind Placement Officer of the National Association for the Blind in this respect. It is satisfactory today to report that there are more blind people employed in open industry in the City than in workshops.

Sir Robert Jones Workshops

Financial assistance has continued to be given to the Sir Robert Jones Memorial Workshops, which employ 45 disabled persons in the trades of bookbinding, shoe repairs, and Christmas card decorations. There is no doubt that but for the financial help which the City has given, this workshop could no longer continue to carry out its valuable and useful work.

Deaf and Dumb

During the year, meetings were held with the neighbouring local authorities to discuss the suggestion by the Liverpool City Council that they should no longer use the Advisory Council, but that the Authorities should have direct representation on the managing board of the Liverpool Adult Deaf and Dumb Benevolent Society and the Catholic Deaf and Dumb Society of St. Vincent de Paul. After much discussion, agreement was reached with the organisations concerned, who agreed in principle to this change, but details are not yet complete.

Both societies have continued to provide welfare services on behalf of the City for the deaf and dumb. Liverpool Adult Deaf and Dumb Benevolent Society provide complete welfare services for Protestants, and interpreter assistance, particularly in finding employment and general welfare for Roman Catholics, whilst the Catholic Deaf and Dumb Society of St. Vincent de Paul provide mainly religious welfare and social welfare.

At present a per capita grant is paid to these societies at the rate of £3 10s. 0d. per annum.

Accommodation for Handicapped Persons

Within Westminster House are at present housed a number of severely handicapped people whose main reason for their being in need of care and attention is their handicap rather than their age. As far as possible, the City Council has arranged accommodation and maintained these people in various voluntary establishments throughout the country, but it was realised that there was an urgent need for special accommodation within the City to be provided for this group of persons. It has now been agreed that the City Council should build a special hostel to accommodate a number of handicapped persons, and that this should be sited in Ullet Road.

Housing Points Scheme

Reference is made in the annual report this year for the first time to the new Housing Points Scheme whereby the Medical Officer of Health investigates and adjudicates on the granting of additional basic points for re-housing. During the year, 3,960 general medical cases, 780 pulmonary tuberculosis cases, and 49 non-pulmonary tuberculosis cases applied for this assistance. 1,594 general medical cases were awarded points, and 40 general medical cases and 39 tuberculosis cases were recommended to the Director of Housing for submission to the Allocation (Special) Sub-Committee of the Housing Committee.

Housing for Tuberculosis Cases

The section dealing with the important aspect of the work has built up during the year, and a satisfactory system has now been worked out for dealing with what often is a difficult problem. By the arrangement whereby a confidential medical report is sent to the Medical Officer of Health from the patient's own doctor, it is possible to assess fairly these cases. In every instance at least one visit is paid by a sanitary inspector, and in difficult cases the doctor pays a visit.

Sanitary Section

Reference was made in the last annual report to the assistant sanitary inspector training scheme which had then started. This scheme, which has relied on the recruitment of young enthusiastic men, has continued to help considerably in dealing with many problems which have arisen throughout the year. The total staff has now been increased to 85.

Steps have been taken to speed up the machinery for correcting public health nuisances. The special Sub-Committee meeting now weekly has

helped in this respect, and it is anticipated that in the next few months there will be an increase in the work carried out in default. Experience has shown that this is often the quickest remedy, and also has the extra advantage of acting as a spur to the landlord's workmen.

Liverpool Corporation Act, 1955

During the early part of the year much time was spent in preparation of the evidence in connection with the Liverpool Corporation Act, 1955. Later, evidence was given in London regarding the need for various clauses. It is gratifying to record that the evidence submitted in respect of public health matters in the Bill resulted in all the clauses being retained, and they are now incorporated in the Liverpool Corporation Act, 1955.

Pigeons and Starlings

One of the new clauses is concerned with mitigating and abating the nuisance and damage caused to the City by pigeons and starlings. Power has now been given to seize and destroy these birds, and experimental tests have been carried out to ensure the most practical and economical way of doing so.

Burst Pipes

A special problem was created early in the year by the sudden severe frosty weather which resulted in over 7,000 burst pipes. The damage which was caused by flooding, etc., necessitated much work on the part of the sanitary inspectors to arrange for the damage to be made good, and for the water supply to be reconnected.

Slum Clearance

The slum clearance drive has continued unchecked throughout the year. Many public enquiries have been held, and 15 clearance areas were represented during the year.

Activities of previous years resulted in six public enquiries and two local hearings in connection with orders made in respect of 17 clearance areas.

One of the most difficult problems which have become defined during the year has been in the operation of the deferred demolition clause in the Housing Repairs and Rents Act, 1954.

Inspection of the premises in which deferred demolition will be possible has shown that usually they are occupied by the better type of working-class family who have striven to retain their houses in a reasonable state of habitation. This class of person is usually very

clean, with healthy children, and naturally are most enthusiastic to move from their squalid surroundings. The problem is whether this class of family should be condemned to further lengthy sojourns in sub-standard houses merely because they have been in the past house-proud, while their neighbour, who is to be moved, has not bothered to carry out any preservation, cleaning and decorating. It may be that the fair solution will lie in using the deferred demolition house as a decanting area, which would have the advantage of not penalising families who have maintained a good standard in their houses.

Sanitary Inspectors General Duties

There has been a large increase during the year in the work undertaken by sanitary inspectors investigating infectious diseases, and in following up food poisoning outbreaks and dysentery epidemics. A system has now been worked out in which certain sanitary inspectors in each district are being highly trained in this work, which will be of great value, should any type of serious large-scale outbreak occur. Difficulty was experienced in the collection of specimens, but this has now been overcome by the appointment of an assistant sanitary inspector using a motor-cycle.

During the year, 7,278 specimens were collected for bacteriological examination.

Movable Dwellings

Reference was made in detail in the annual report of last year to the problem of caravans within the City. 92 visits were paid to such sites, on which caravans were stationed throughout the year. In all instances, the owners of the caravans were persuaded to move without resource to legal proceedings. Additional power has now been obtained under the Liverpool Corporation Act, 1955, to deal with these moveable dwellings.

Food Hygiene

An enlarged section is included in this annual report on the important subject of food hygiene, which has been very much in the public mind during the year, particularly as the new Food Hygiene Regulations were published at the end of the year. Improvements have been noted in many food establishments, but in general there is a need for a new outlook, and for new ideas on this subject. In particular, there is a need to quicken and stimulate the interest of the individual worker in the food factory, shop, canteen or restaurant. Managements and super-

visory staff have been found in some instances rather too prone to be content to tell their assistants what to do, without making certain that the order is fully and immediately understood. There is also generally an ignorance of the reasons affecting many of the precautions which are necessary.

The past year has been one of expectancy and anticipation in this field, as it was known that it was the policy of the Ministry to introduce their new legislation towards the end of the year.

These regulations have now been published and are of far-reaching effect, and should assist in raising the standard of hygiene in food premises. Many of the improvements have already been introduced with the co-operation of the trade, and it is particularly important that structural alterations are not negatived by slackness of individual food handlers.

Food shops have also been given the maximum possible attention throughout the year, and in many cases changes have been made to remove the unhygienic practice of open display of cooked foods, and the glass counterscreen has fortunately become more widespread in its use. In some establishments, sanitary inspectors have found that storage rooms have not received sufficient attention, and sometimes an excellent shop will be supplied by unsatisfactory storerooms.

Fish-frying Establishments

There has been an increase in the number of fish-frying establishments set up in the City during the year, and most of the new entrants to this business have benefitted by prior consultation with the sanitary inspection staff, to make sure that the construction of their premises is satisfactory from the point of view of hygiene. It is encouraging to note that there is a growing realisation that sound planning of premises is an essential if a high standard of hygiene is to be maintained.

Bakehouses

The drive to improve the standard of hygiene in bakehouses has continued during the year, and at last within the City, bakery hygiene has become more and more a reality in the majority of bakehouses. In these establishments in particular, the constant need for personal contact of supervisors has been realised.

Licensed Premises

Particular attention has been paid during the year to the practical difficulties provided by the washing of beer glasses at licensed premises. Advice has been given on the usefulness of bactericidal detergents and machines, and it is satisfactory to note that the use of mechanical glass-washing apparatus is increasing, although in rush hours this is almost invariably supplemented by manual cleansing in the bar sinks.

Attention has also been given to the important problem of sanitary accommodation in licensed premises, particularly for the staff. Mention is made within the report of the increasing problem provided by licensed premises left in slum areas, the majority of houses in these areas having been cleared away.

Shops Act

The danger of certain occupations being omitted from the benefits of the legislation of the Shops Act is mentioned in the report, with particular reference to launderettes. The difficulties of closing hours for shops and the weaknesses of present laws were clearly emphasised by the Gowers report which was published seven years ago. These snags and difficulties still remain.

Hairdressers and Barbers

Under the Liverpool Corporation Act, power has been obtained to secure registration of persons carrying on the business of hairdresser or barber, and the premises in which the business is conducted, and also power to make byelaws concerning the cleanliness of the premises registered and of the instruments, towels, materials and equipment.

Although this part of the Act will not come into operation until May 1956, a great deal of work has been done during the year in the 529 hairdressers' premises in the City. These have been inspected and the occupiers interviewed to find out their views, difficulties and suggestions, and much valuable information has been obtained which will be of considerable assistance in administering this new legislation.

Atmospheric Pollution

In this annual report the serious problem of atmospheric pollution is the subject of special mention. It is hoped that each year one or two special problems will be dealt with in this way, and the choice of atmospheric pollution has been natural at a time when the challenge of the increasing pollution of the air of the City is very obvious and acute.

During the year, which was noticeable for the glorious summer, it is dismal to report that measurements showed no significant improvement

in pollution. On an average 20 tons of rubbish (mostly soot and dirt) fall on each square mile of the City per month. To meet this problem a new stimulus has been given to this aspect of public health, and there is a new urgency and enthusiasm in the whole department in its methods of dealing with atmospheric pollution.

The problem has been investigated from every angle, including the use of aircraft. This latter method proved that the smoke plume from Clarence Dock Power Station is dust and smoke, and not water vapour as had so often been suggested. The details of the difficulties and the causes and effect of this dreary story of atmospheric pollution are told in the text.

Main Offenders

Investigations showed that the main group of offenders are industry, small ships on the river, and nationalised bodies such as Clarence Dock Power Station and hospitals.

It has become more and more obvious that the management of many firms have not yet interested themselves in the stokeholds and boiler houses, and the conditions under which their stokers work. Too often the same unsatisfactory conditions are found, and a combination of dirt, darkness, dampness, dilapidation and damage are repeated with monotonous regularity. In many cases instruments and gauges to help in the reduction of smoke are not provided, or if present, due to mechanical defects are not used. Occasionally even if provided these gauges are beyond the comprehension of the stokers; in other words, there is evidence of complete lack of interest in the problem.

Stokeholds are out of sight, but the results of the consequent lack of interest are unfortunately only too evident from the palls of smoke from the chimney above.

A recent example of how even modern equipment can be defeated by lack of interest and enthusiasm has been shown recently by one of the hospitals, whose new boiler stack continued to pour out black smoke until pressure was brought to bear on the management to complete the fitments of the modern machinery necessary to make that chimney smokeless.

During the year, successful legal proceedings were taken against four small craft on the river. The result was an immediate improvement,

and this mainly has been continued. It is unfortunate when improvements can only be obtained after legal action has been instituted, but clearly the menace is so great today that this form of control may have to be considerably extended.

Atmospheric Pollution and Cancer of the Lung

In case there is a feeling that the problem of atmospheric pollution has been overstated, details are given of the work being carried out in conjunction with the British Empire Cancer Campaign to investigate the possible effect of atmospheric pollution in the City, compared to rural areas in North Wales. The mortality figures in Liverpool for men from cancer of the lung are 131 per 100,000 for non-smokers, compared with 14 per 100,000 for non-smokers in North Wales. The figures are striking and menacing, and in another part of the report a further increase in cancer of the lung mortality in this City emphasises the urgency of the problem.

Perhaps the most tragic part is that so much can quite easily be prevented, if only the public and managements would accept their responsibility.

The whole question is at present being dealt with nationally, but it is hoped that the proposed Clean Air Bill at present before Parliament will not be stifled by exemptions for certain classes of offenders who are already amongst the most troublesome.

Progress towards the first smokeless zone in the City has continued and the date of October, 1957, has been fixed for its introduction. It must, however, be realised that already much has been done to achieve smokelessness in this zone, and the Liverpool Corporation Act, 195 now in operation also provides a useful clause whereby the prior approval of the Council will have to be obtained before any new plant is installed. Already, however, most industries are voluntarily accepting prior approval and it is therefore expected that no difficulties will arise in the administration of this section.

Disinfection and Disinfestation

The large amount of miscellaneous duties undertaken by this section are mentioned in full in the text, and it will be seen that they include disinfection and disinfestation, inspection of premises for verminous conditions, fly prevention, control of the City Mortuary and burial service, the distribution of home nursing equipment, assistance with the

transport of the mobile meals service, the maintaining of a food and general store, and the issue of welfare foods.

This Report is a record of the work of the entire staff of the Health Department, and I wish to express my thanks for their loyal and enthusiastic support in all our endeavours; I also acknowledge the assistance given by other departments.

I wish especially to acknowledge the assistance given to me by the Chairman, Alderman Alexander Griffin, and the Members of the Health Committee, and for the kindness and courtesy with which they have considered the reports and recommendations made to them in the course of the year.

I am,

Your obedient servant,

Andrew B. Semple

Medical Officer of Health.

CITY of LIVERPOOL

MUNICIPAL WARDS 1955

SHOWING

BIRTH RATE per 1000 population

DEATH RATE per 1000 population

INFANT DEATH RATE per 1000 live births

NUMBER OF PERSONS PER ACRE

CITY OF LIVERPOOL

POPULATION 779,900

BIRTH RATE	19·6 per 1000 population
DEATH RATE	11·9 per 1000 population
INFANT DEATH RATE	30·3 per 1000 live births
NUMBER OF PERSONS PER ACRE	28·0

CITY OF LIVERPOOL.

SUMMARY

OF

VITAL STATISTICS FOR 1955.

Area (land and inland water) ... ... 27,818 Acres

Population (Estimated by Registrar General) 779,900

Live Births ... ... 15,268 — Live Birth Rate ... 19·6 per 1,000 of estimated population.

Deaths (all causes)... ... 9,289 — Death Rate ... 11·9 per 1,000 of estimated population.

Deaths (under 1 year of age) 462 — Infant Mortality rate: 30 per 1,000 live births.

Deaths from :—

Pulmonary Tuberculosis	185	Pulmonary Tuberculosis death rate	0·24
Other forms of Tuberculosis	19	Non-Pulmonary Tuberculosis death rate	0·02
Respiratory ...	1,589	Respiratory death rate	2·04
Cancer	1,601	Cancer death rate	2·05

(All rates above: per 1,000 of the estimated population.)

Maternal Deaths ... ... 9 — Maternal Mortality rate: 0.57 per 1,000 births.

Neonatal Death Rate ... 20·3

Stillbirth Death Rate ... 26·0

VITAL STATISTICS.

Statistical Appendix

Many of the lengthy statistical tables are included in a specia appendix at the back of this report. A list of the tables included i given at the front.

Births.

Birth Rate

There were 15,268 live births registered during the year, which repre sents a birth rate of 19·6 per 1,000 of the estimated mid-year populatio 7,843 of these births were male, and 7,425 female. There were 78 illegitimate live births (5·1 per cent of the total live births). The figures show a slight reduction in the birth-rate for the year, compare with 1954. It is encouraging to notice there has been a reduction in th percentage of illegitimate births. The birth rate continued to be co siderably higher than the average for England and Wales, which fo the year was 15·0 per 1,000.

The variation in the births and stillbirths from 1938/1955 inclusiv are given in the graph on the page facing.

Stillbirths.

Stillbirth Rate

During the year there were 408 stillbirths registered in the Cit which represents a stillbirth rate of 26·0 per 1,000. This is an increa on the figure 24·8 for the preceding year. The stillbirth rate among legitimate babies was just under 26 per 1,000, and amongst illegitima babies was 28 per 1,000.

Mortality.

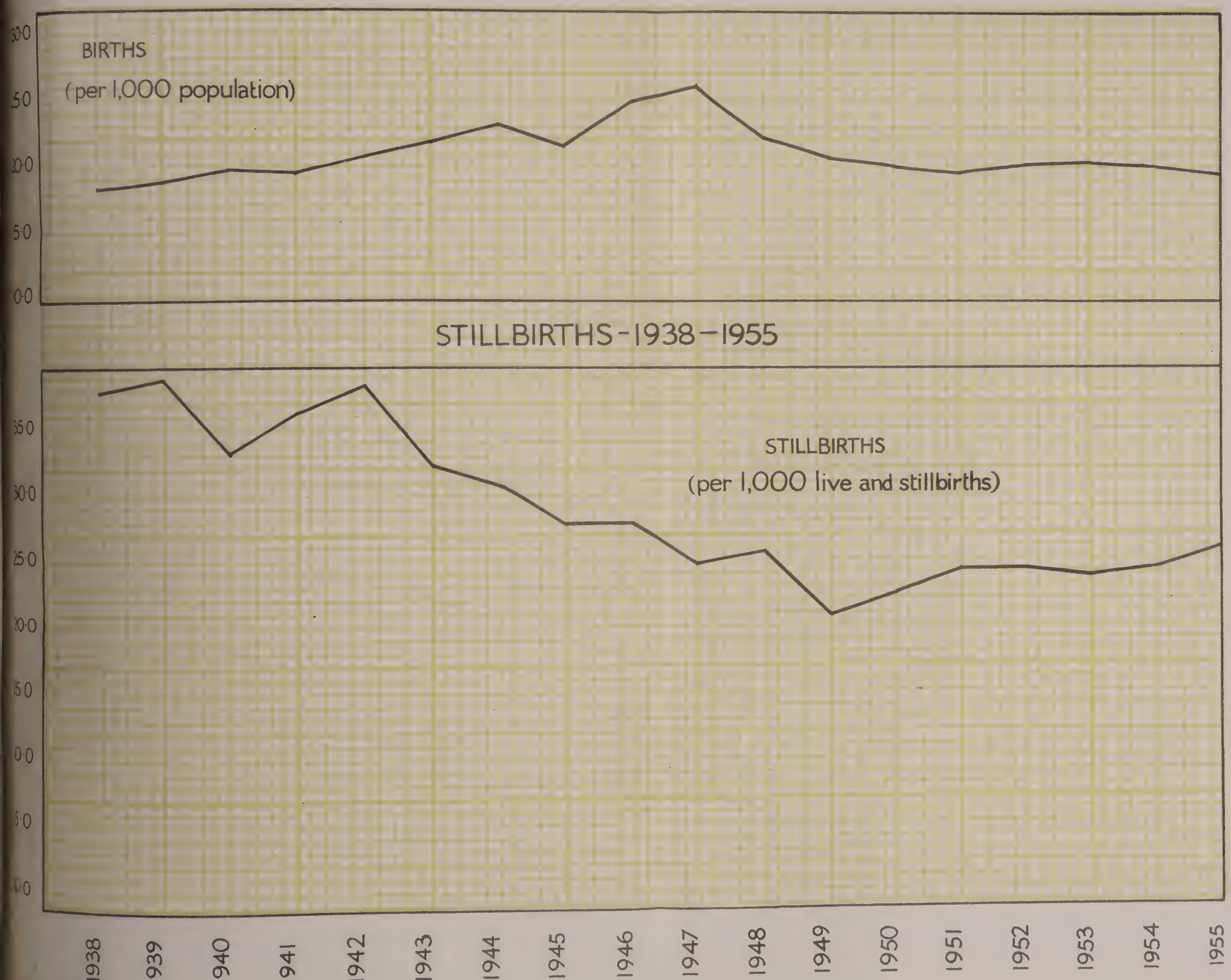
General Death Rate

There were 9,289 deaths registered within the City during the yea 4,853 males and 4,436 females. This gives a general death rate of 11 per 1,000, which is an increase on the rate of 11·4 for the preceding yea There was an increase in the number of deaths from cancer of the lun and the figure for the year was 408. This is an increase on the 19 figure, but is below the slightly high 1953 figure of 432 deaths.

It is encouraging to record a further substantial fall in the number deaths from tuberculosis to 204 from 244 in 1954.

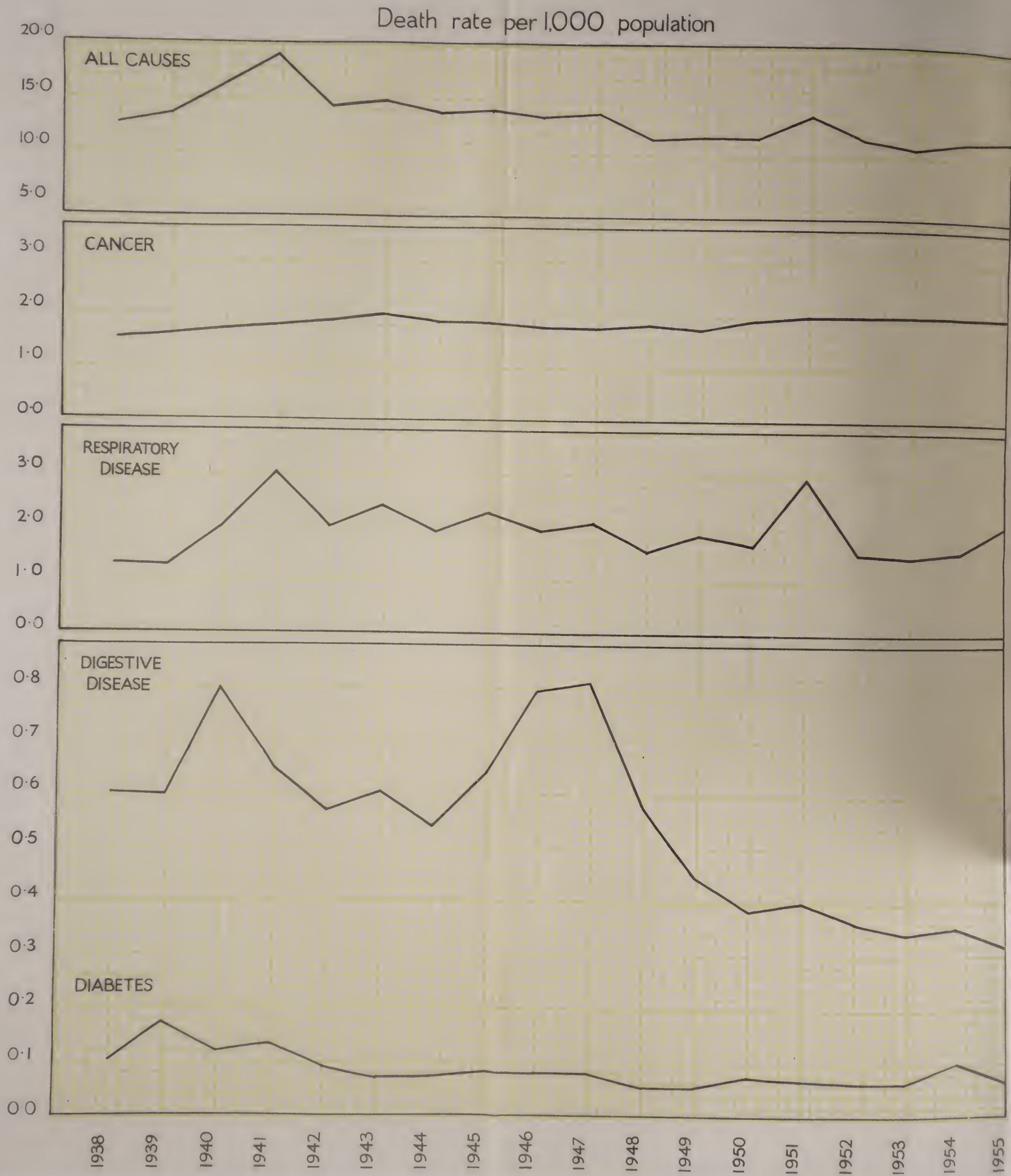
CITY OF LIVERPOOL

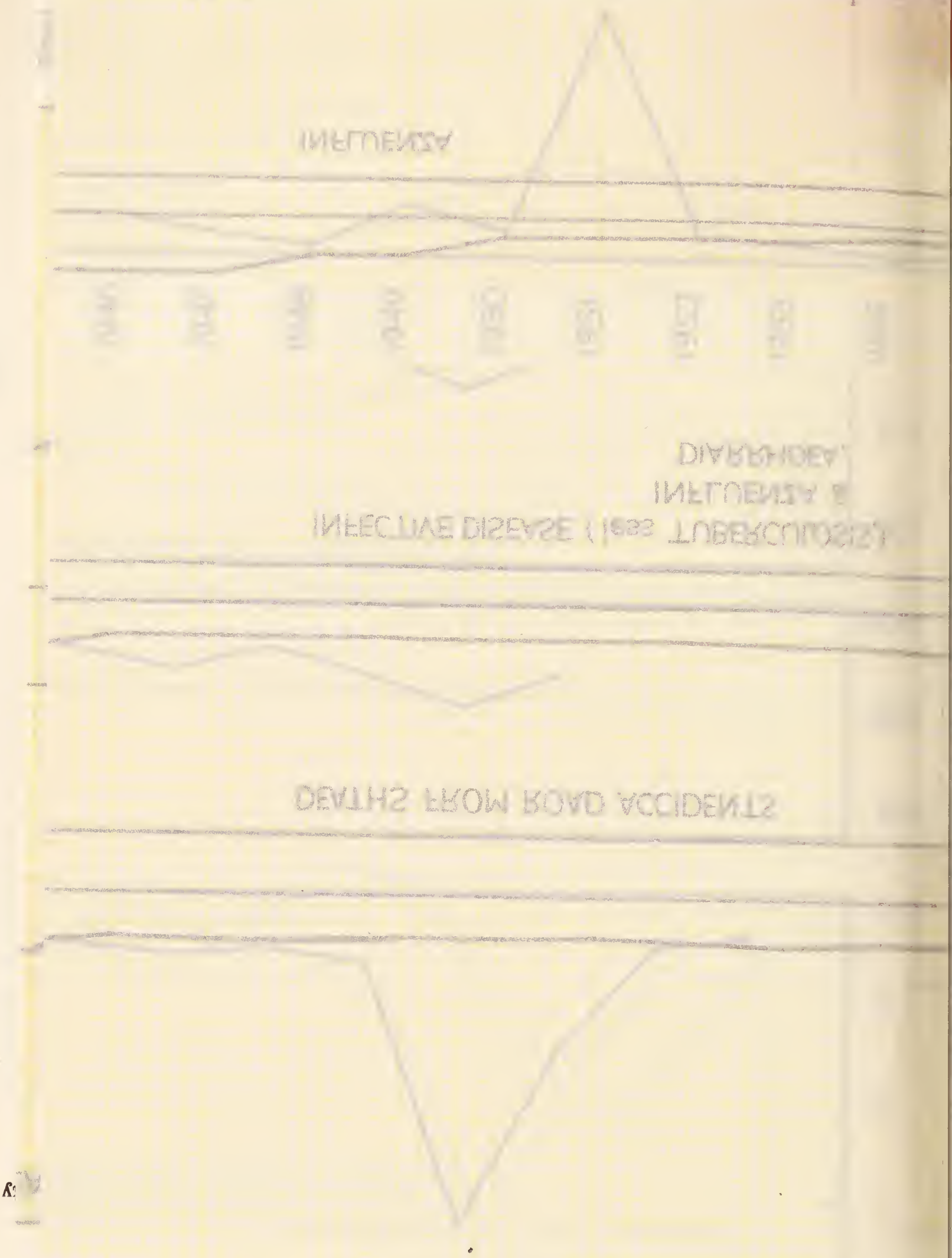
BIRTHS – 1938 – 1955



TRENDS OF MORTALITY – LIVERPOOL

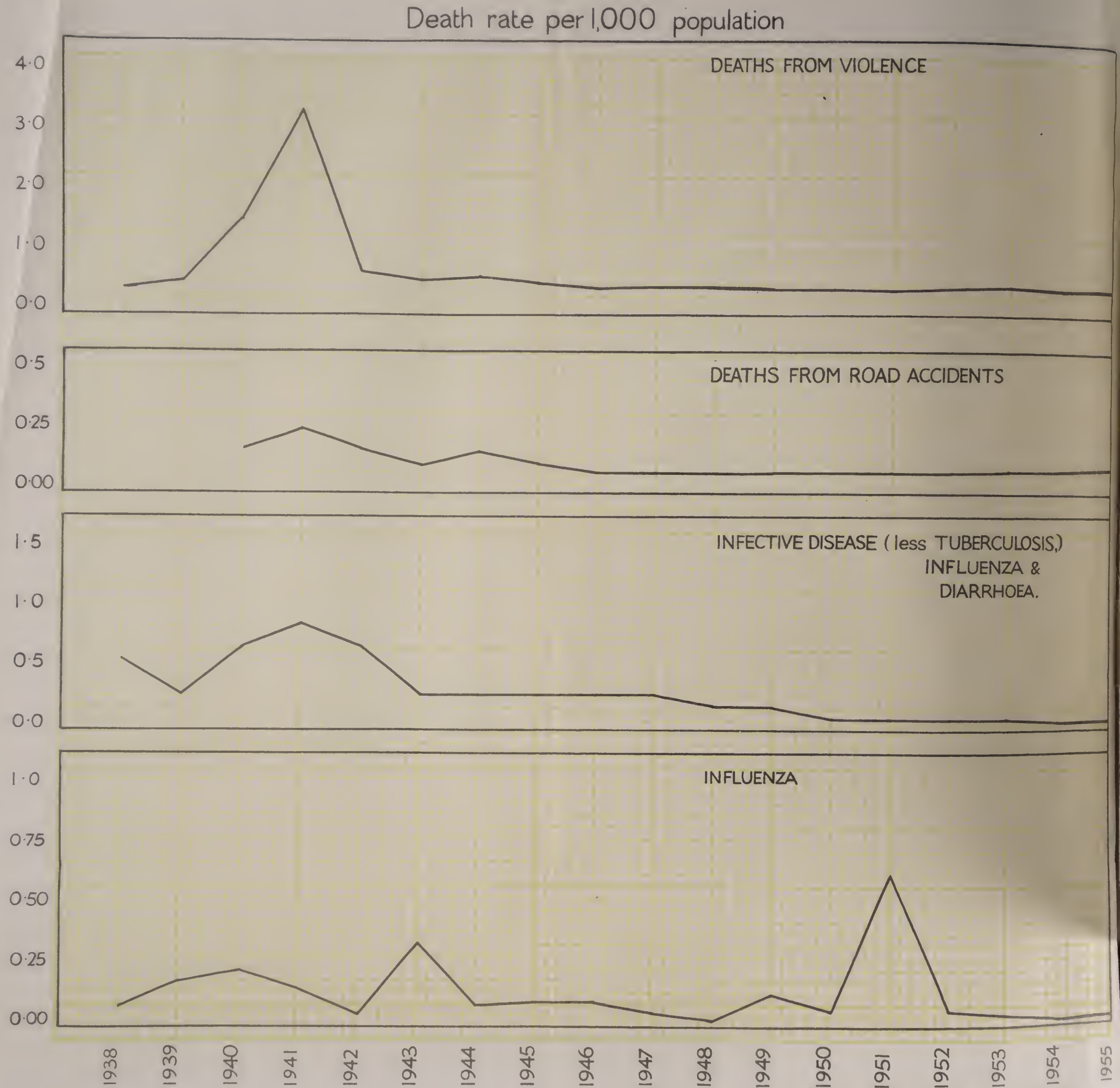
1938 — 1955

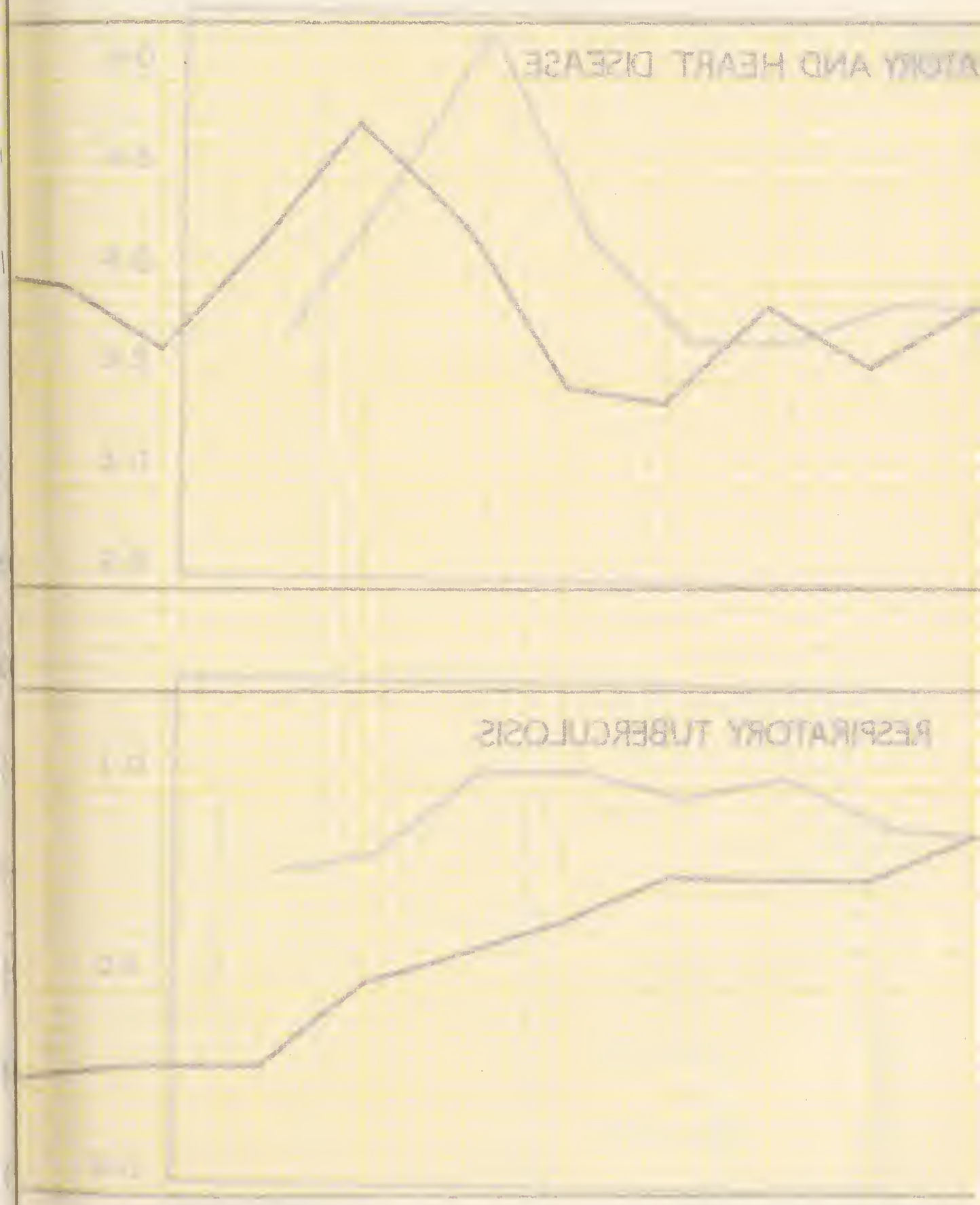




TRENDS OF MORTALITY—LIVERPOOL

1938 — 1955

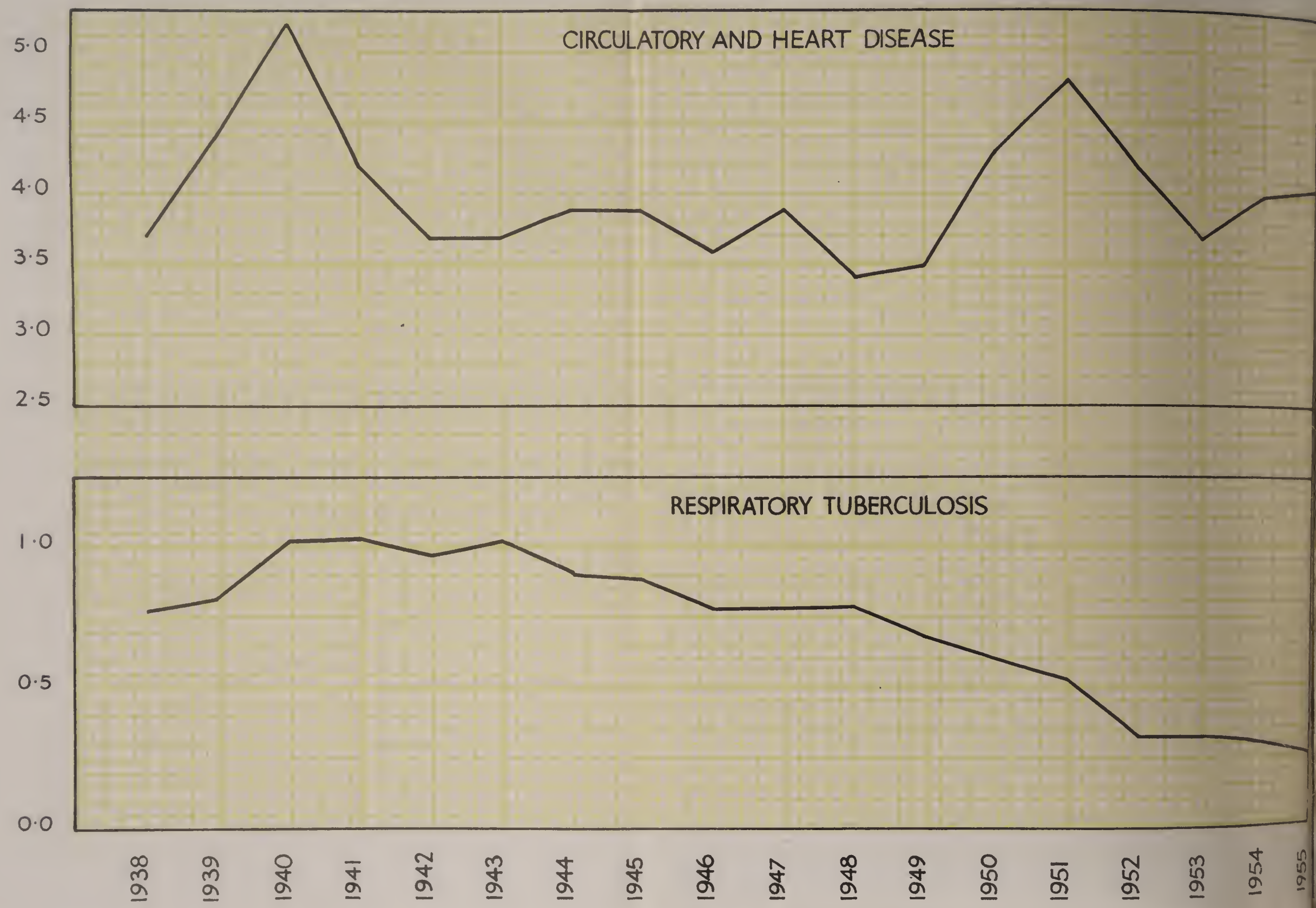



RESPIRATORY TUBERCULOSIS
1954

TRENDS OF MORTALITY—LIVERPOOL

1938 — 1955

Death rate per 1,000 population



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Infant Mortality Rate

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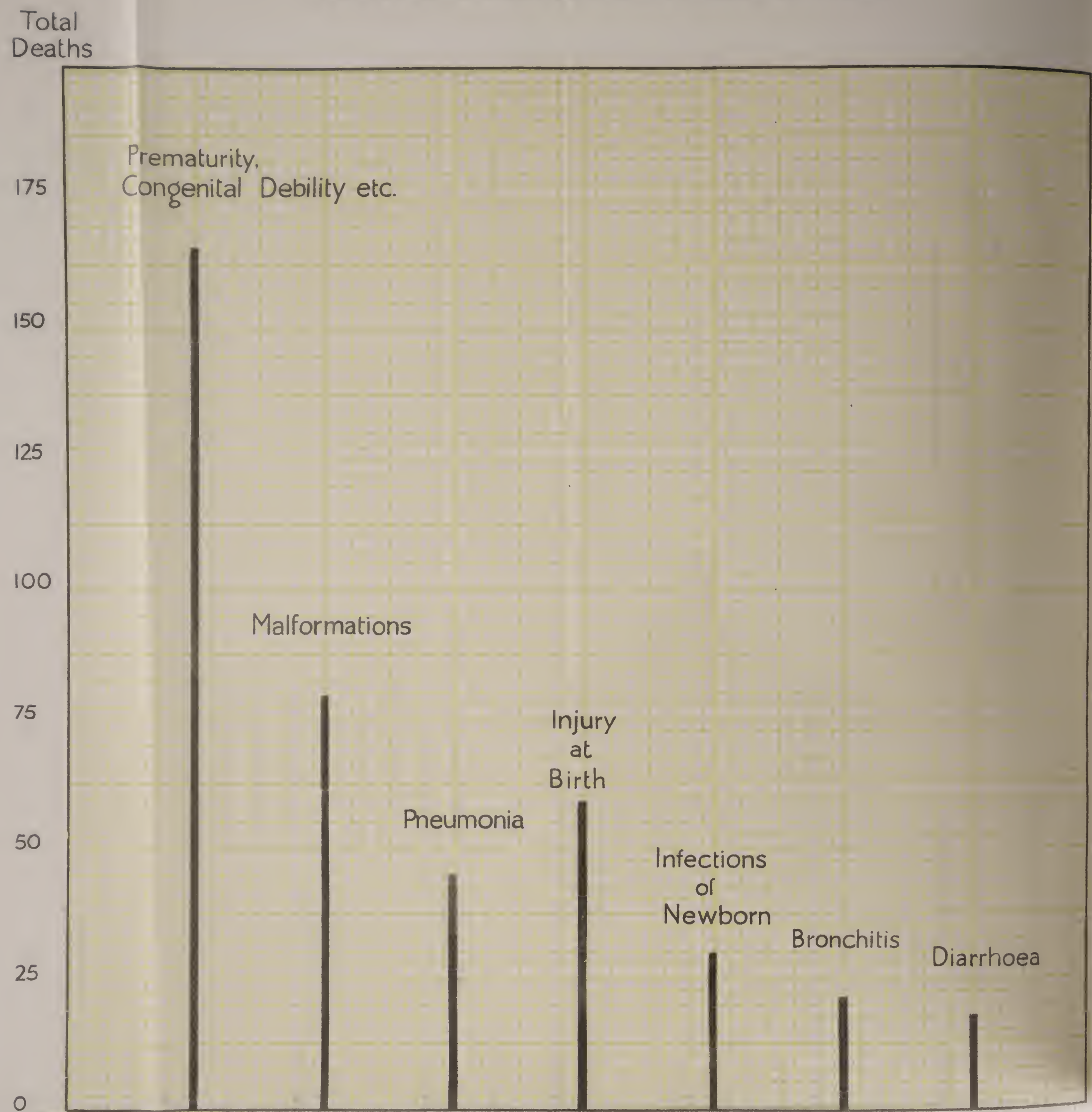
CITY OF LIVERPOOL

PRINCIPAL CAUSES OF INFANT MORTALITY—1955



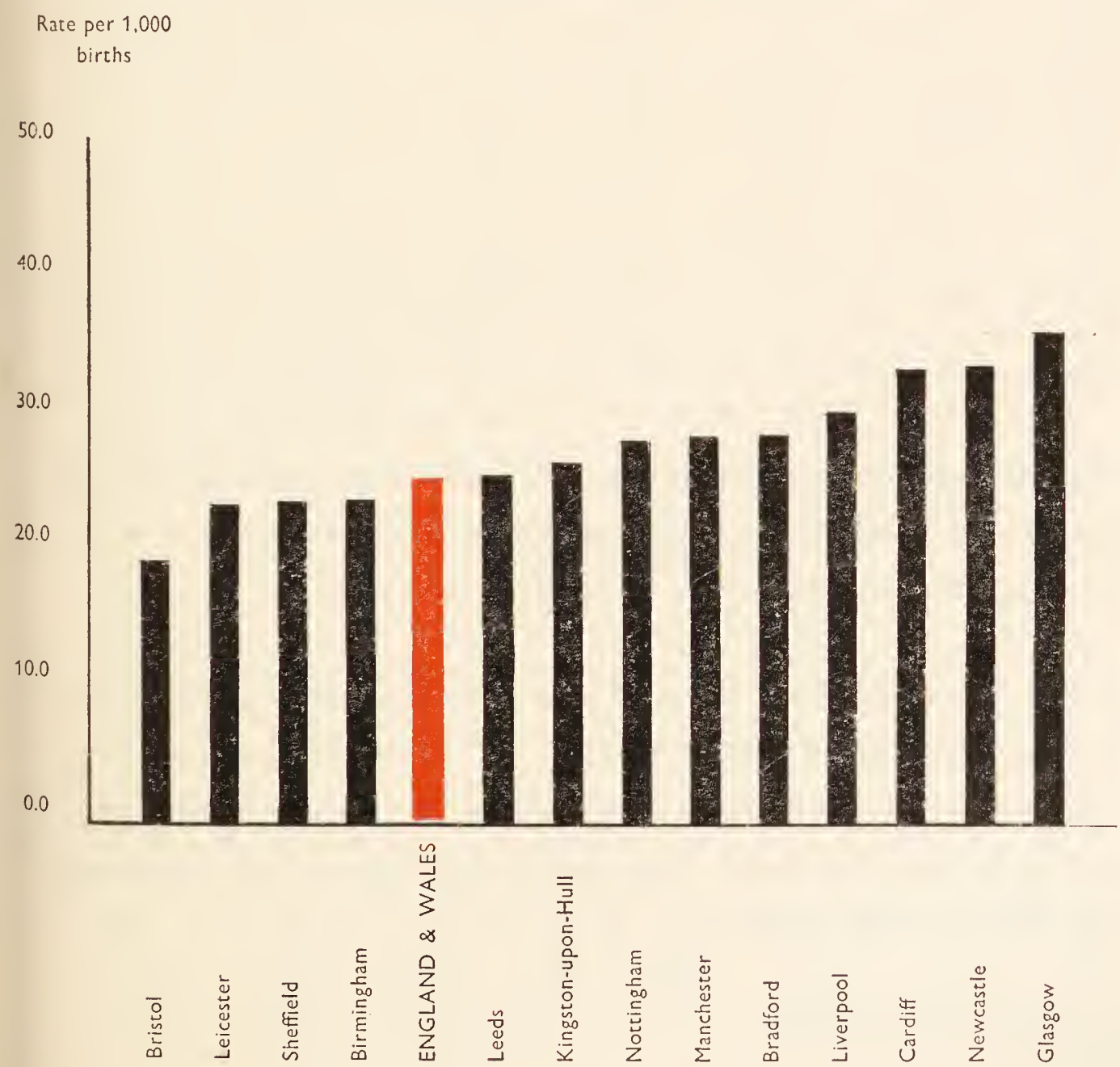
The trends of mortality of all causes and certain specified diseases have been prepared graphically and are produced on the accompanying graphs. Full detailed causes of mortality are given in the statistical appendix.

Infant Mortality.

Infant Mortality Rate

The infant mortality rate was further reduced during the year to 30 per 1,000 live births. A total number of 462 infant deaths occurred, of which 39 were in illegitimate children. This gives an illegitimate infant mortality rate of 50, compared with a legitimate infant mortality rate of 29. A graph of the principal causes of infant mortality is given later, and fuller statistical tables are given in the appendix at the back of this report.

CHART SHOWING INFANT MORTALITY RATE FOR A NUMBER OF THE LARGER AUTHORITIES FOR THE YEAR 1955



Child Mortality Rate

Child Mortality.

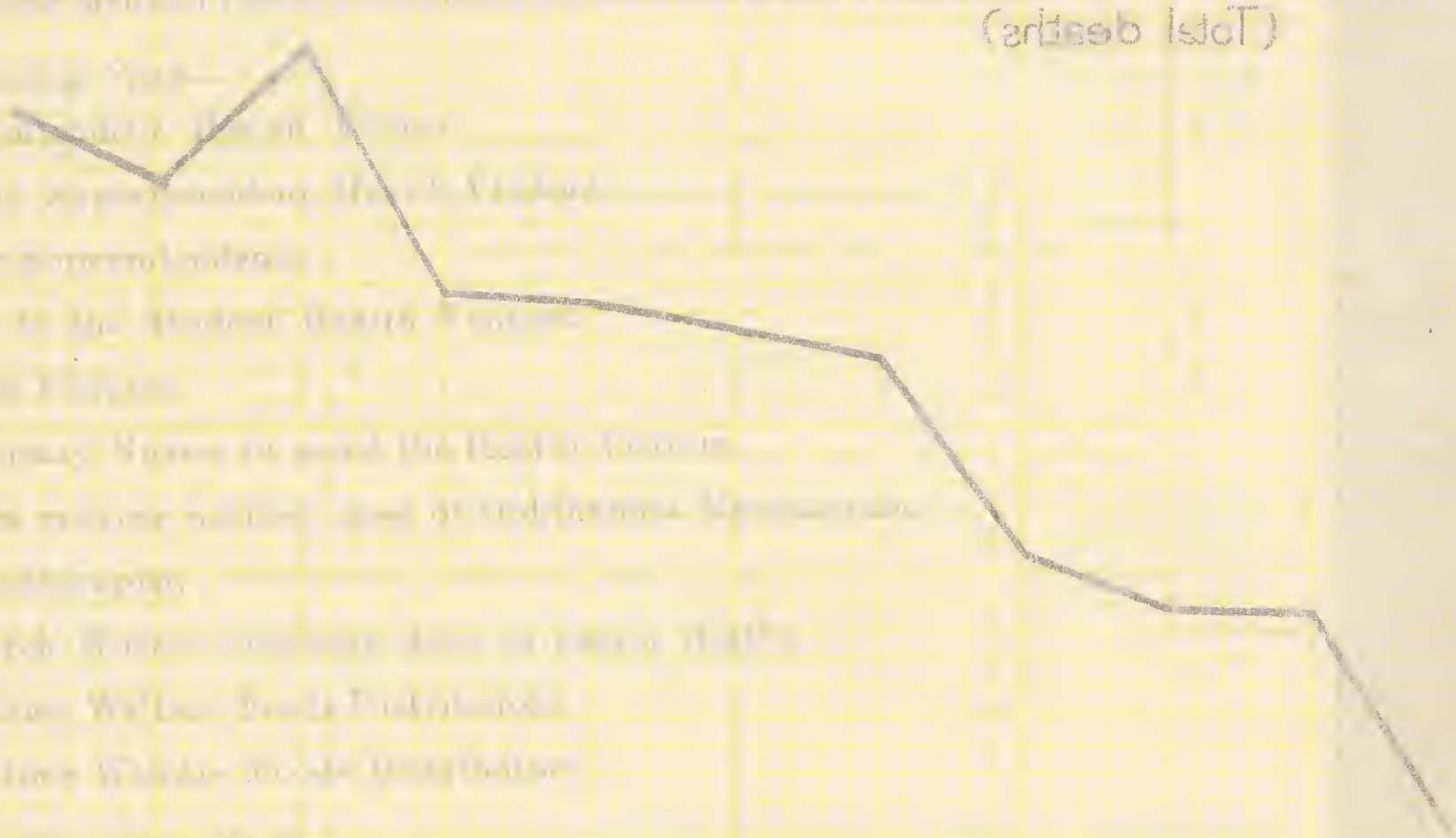
YEARLY AVERAGE NUMBER OF DEATHS IN SUCCESSIVE QUINQUENNIA, 1920-1949, A
TOTAL DEATHS IN THE YEARS 1950 TO 1955.

Year.	Deaths under 1 year of age.	DEATHS, 1 YEAR AND UNDER 5 YEARS OF AGE.							
		Total, 1 year and under 5 years of age.	General Diseases (including T.B.).	Respiratory Diseases.	Digestive Diseases.	Measles.	Whooping Cough.	Diphtheria.	S F
						Included in General Diseases.			
1920-24	2,278	1,349	557	513	121	202	109	62	
1925-29	1,879	1,252	564	461	121	227	118	61	
1930-34	1,601	890	456	278	63	200	72	79	
1935-39	1,283	487	243	147	30	79	46	58	
1940-44	1,140	366	160	94	17	27	23	45	
1945-49	1,100	168	67	36	13	8	15	9	
1950	601	121	41	37	5	1	11	1	
1951	548	136	40	26	4	3	5	—	
1952	562	97	26	18	8	4	1	—	
1953	569	90	15	20	5	2	1	1	
1954	485	58	9	11	2	1	1	—	
1955	462	71	9	19	5	1	1	—	

It will be noted from the above table that the marked and dramatic fall recorded in 1954 has not continued, and there has been a rise during 1955, when 71 deaths occurred in infants aged 1-5 years.

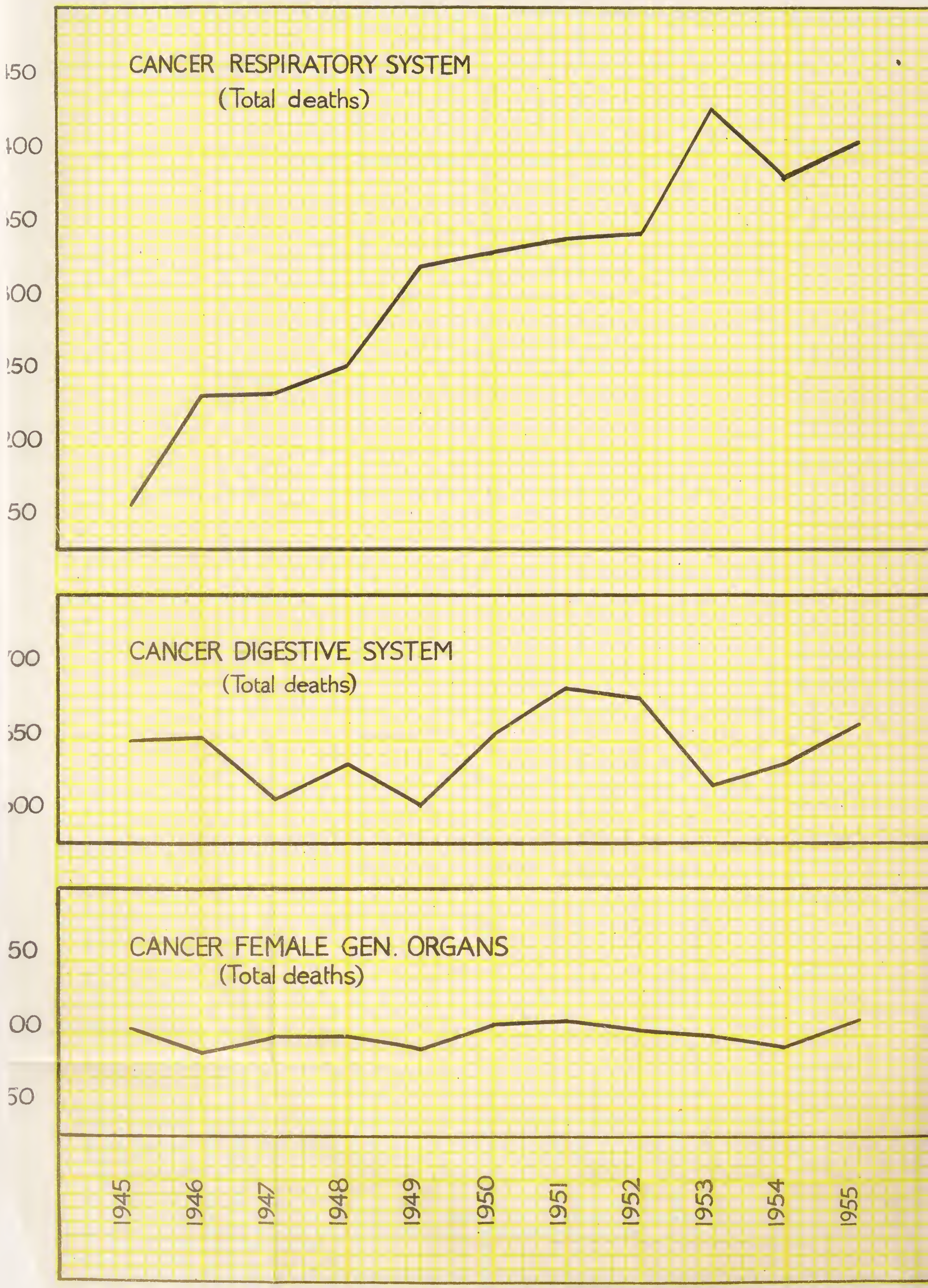
Deaths from Cancer

There has been little significant change in the number of deaths from cancer which occurred during the year. There was, however, an increase in the number of deaths from cancer of the respiratory system, and 408 occurred during the year. This figure is, however, still considerably below that of 1953 (Table 4).



TRENDS OF MORTALITY - LIVERPOOL

1945 - 1955



MATERNITY AND CHILD WELFARE

Staff

1 Senior Medical Officer.

4 Assistant Medical Officers.

27 Part-time Medical Officers, including 2 Consultants and 1 Registrar.

Health Visiting Staff—

1 Superintendent Health Visitor.

2 Deputy Superintendent Health Visitors.

8 Clinic Superintendents.

1 Tutor to the Student Health Visitors.

59 Health Visitors.

2 Temporary Nurses to assist the Health Visitors.

2 Nurses visiting notified cases of Ophthalmia Neonatorum.

1 Physiotherapist.

1 Research Worker collecting data on cancer deaths.

24 Full-time Welfare Foods Distributors.

10 Part-time Welfare Foods Distributors.

Municipal Midwifery Staff—

1 Non-medical Supervisor of Midwives..

2 Assistant Non-medical Supervisors of Midwives.

54 Municipal Midwives.

1 Premature Baby Midwife.

Local Authority Clinics.

Attendances

The number of new cases attending the ante-natal clinics has fallen from 4,534 in 1954 to 3,575 in 1955, and the total number of attendances has fallen from 22,890 to 19,447. On the other hand the total number of attendances of infants 0-5 years at the welfare clinics has increased from 88,611 to 90,502, but the number of new cases of infants under one year has decreased from 8,317 to 8,175.

Statistics relating to the clinics are shown in Table 7.

Temporary Clinics

The temporary clinics which were opened in the new housing estates of Croxteth and Speke have been well attended during 1955. The welfare foods are sold on both premises.

Speke Clinic

At Speke the accommodation comprises a two-bedroomed flat. Durin the year the attendances at the child welfare clinics increased consider ably and it has become necessary to make arrangements to hold tw weekly sessions instead of one during 1956. A weekly ante-natal clini is held and the attendances have remained fairly constant.

Croxteth Clinic

The clinics at Croxteth are held in a small three-bedroomed Corpora tion house. A weekly midwives' clinic is held, but the attendance her was poor during the first six months of the year, although it improve slightly towards the end of 1955. A doctor's ante-natal session is no held at this clinic. Two infant welfare sessions are held per week an they are well attended. It is thought that during 1956 it may b necessary to increase the number of sessions to three per week.

Relaxation Classes for Expectant Mothers

The number of women who attended ante-natal relaxation classes a the welfare centres was 258, and the attendances they made were 1,057 These show a decrease in the figures of 1954 although 112 cases were referred by hospitals and general practitioners as compared with 4 in 1954.

Special tests at Ante-Natal Clinics

During the year, 973 mothers attending the ante-natal clinics had a chest X-ray by mass miniature radiography. The number of blood specimens taken for Rhesus testing was 1,681.

Toddlers' Clinic

In view of the fact that previous attempts to hold toddlers' clinics in this City had failed, it was decided to try a combined clinic for the family—a medical clinic for the toddlers and a weighing clinic for the babies. This is being tried out at one centre only, and if successful will be extended to other areas.

Vaccination and Immunisation.

Vaccination and Immunisation

Facilities are available at all clinics for vaccination and immunisation against whooping cough and diphtheria.

Welfare Foods

The Government welfare foods scheme is now well established under the direction of the local authority and welfare foods are now being distributed from 21 infant welfare centres and 7 other centres in the City. The demand for welfare foods has been maintained and the

amount distributed up to the end of the year was:—

National dried milk—683,938 tins.
Cod liver oil—94,967 bottles.
Orange juice—510,637 bottles.
Vitamin tablets—39,555 packets.

Special Treatment for Pre-School Children

By arrangement with the Education Committee, children under the age of 5 years suffering from defective vision or orthopaedic defects may receive treatment and advice at the School Health Service special clinics. During the year, 437 cases were referred to the School Health Service, namely:—

Defective vision	246
Orthopaedic defects	191

Infestation by Head Lice

Infestation by head lice still persists among mothers and young children and the health visitors continue to give it their attention. In addition to those cases they discover themselves, other infected families were referred to them by nursery matrons, school nurses, general practitioners, hospitals and others.

During the year, 670 children and 171 adults were found to be verminous and in all cases advice was given as to cleanliness and arrangements made for cleansing at home or at cleansing stations.

In all, 48 adults and 231 children were cleansed at the cleansing stations, the remainder being cleansed at home.

Special Care of Premature Infants.

Domiciliary Care

It was hoped to appoint two nurses to care for infants between 4 lbs. and $5\frac{1}{2}$ lbs. in their own homes. Unfortunately, owing to difficulty in the recruitment of staff, only one nurse has been appointed. This nurse has had considerable experience, having been staff nurse in a premature baby unit in hospital before joining the local authority service.

The following equipment is available on loan for premature infants nursed at home: special cot with pockets for hot water bottles, hot water bottles, foam rubber mattress, flannel gown with hood and gamgee gown with hood.

Owing, however, to shortage of staff this midwife had to be transferred to general duties, and it was possible to allocate only a small number of premature babies to her. She attended a total of 9 premature infants.

After Care

The midwives engaged on general midwifery duties have paid 347 special visits to premature babies discharged from hospital before the 28th day. They have also paid 563 visits after the 14th day to infants born at home who required extra nursing care.

Liaison with Hospitals

At three maternity hospitals the following arrangements are in operation.

The health department is notified when an infant is about to be discharged and the health visitor for the district in which the infant lives calls at the hospital to see the ward sister and, if possible, the baby's mother is also interviewed. This provides a more efficient follow-up of the advice given in the hospital and also gives the mother an added confidence in the health visitor. In the event of an infant of say less than $5\frac{1}{2}$ lbs. being discharged against advice, the infant would, of course, be under the care of the premature baby nurse.

Breast Milk Bank.

A good working arrangement has now been established with one of the children's hospitals for supplying human milk to the breast milk bank there, and during 1955, 7,330 ozs. of human milk were collected from domiciliary midwifery cases and given to the Children's Hospital for their milk bank.

The arrangement is that sterilised bottles are supplied by the hospital and the following equipment is loaned to the mother by the health department:—sterile wool, funnels, Hibitane cream.

All milk was examined bacteriologically and specimens contaminated by staphylococcus aureus were rejected. Two antiseptics were tried out in collecting 1,474 specimens of milk. In 738 cases the women were instructed to scrub their hands with soap and water, dry them, and then rub in Hibitane cream using it as a hand cream. They were further advised to wipe the nipples with sterile wool and boiled water before expressing the milk. In 736 cases the women were instructed to scrub

their hands with soap and water and then to wipe the nipples with sterile wool and a solution of a well known antiseptic. The results are shown in the following table and suggest that Hibitane is the more effective antiseptic.

SPECIMENS OF HUMAN MILK.

Antiseptic.	Sterile.	B. Coli.	Staph. Aur.	Staph. Alb.	Staph. Pyogenes.	Haem. Strepp.	Misc.	Totals.
Hibitane	176	330	24	182	11	10	5	738
Another well known Antiseptic ...	69	367	27	253	3	10	7	736
No Antiseptic ...	7	82	—	82	—	1	—	172
Totals ...	252	779	51	517	14	21	12	1,646

If the mother of a breast fed baby has to be discharged from hospital and the baby retained, or if a breast fed baby has to be transferred to hospital on account of prematurity or illness, the local authority is notified so that the mother can be visited and enrolled as a milk donor. It is hoped that by this arrangement it will be possible to maintain lactation in many cases where the mother and baby are thus temporarily separated. The shortage of staff has, however, tended to cramp the activities of this service.

Health Visiting Service.

The health visitors continue their work as health teachers and family advisors and their activities are summarised in the statistical appendix Tables 6 and 7.

All maternity cases discharged from hospital after the 10th day are visited by the health visitors. All abnormal cases leaving hospital during any part of the lying in period are visited by the midwives.

Care of the Unmarried Mother

The care of illegitimate children still constitutes an important part of the health visitors' work. A large number of the girls having illegitimate babies have become estranged from their families, and arrangements have to be made for their care during the ante-natal and

post-natal periods, and it is because of the close co-operation existing between the health visitors and the various voluntary workers that this can more readily be achieved. The voluntary organisations undertaking work in connection with unmarried mothers and their babies provide several mother and baby homes both inside and outside the City. The health visitors pay periodic visits to three mother and baby homes which are in the City to give any help and advice which may be necessary. The City Council continues to pay grants to these voluntary organisations.

Co-operation with Hospitals

A very welcome invitation was received from one of the children's hospitals for the health visitors to attend the outpatient clinics. Ten health visitors now pay weekly visits to the three children's hospitals in the City. The opportunities for health education are thus greatly increased and the health visitors are also able to give much valuable information about the social circumstances of the children to the paediatricians.

Psychiatric Clinic

Arrangements have also been made for contact with the psychiatric clinic for children under five years of age. The health visitor pays a monthly visit and it is hoped that with the exchange of information great help will be afforded to these children.

District Clinic Meeting with Probation Officers, N.S.P.C.C. Representatives, Staff of Children's Department, etc.

In December, 1955, with the aim of achieving closer co-operation between different agencies dealing with problems affecting the community, the health visitors invited officers from the National Assistance Office, Children's Department, Probation Office, and the N.S.P.C.C. personnel, to a friendly and informal meeting at 9 of the welfare centres in the city.

At these meetings the health visitors discussed their work and how it could be co-ordinated with that of other departments. Much interest was shown by the visiting officers, who felt they had benefited greatly by the discussion and the personal contact with the health visitors. The interest has remained and, in fact, since the meeting there has been an increasing call upon the health visitors for any help or advice they can offer.

Visits to Aged

Work has increased in connection with the welfare of the aged in the community and still more visits have been paid to their homes.

The health visitors have again visited all cases of poliomyelitis contacts and during the year have paid 1,401 visits. **Poliomyelitis Contacts**

The work on the survey relating to the growth of babies continued during 1955. A large part of the work in collecting data for the North Wales, West Cheshire and South West Lancashire Cancer Research Committee is still being done by the health visitors—in all 556 cases were visited by them. **Research**

Infant Mortality.

It is a pleasure to report a further reduction in the infant mortality rate, although it is still higher than the rate for England and Wales. **Infant Mortality Rate**

An analysis has been made of the causes of death in infants under one month. c.f. Table 8.

There has been a decrease in deaths due to malformation and an increase in deaths from injuries at birth. **Neonatal Deaths**

Whether or not there is any association between the quality of ante-natal care and the number of injuries at birth it is impossible to say. It is, however, interesting to note that of 306 neonatal deaths, the hospital services were entirely responsible for the ante-natal care in only 66 cases, and the local authority clinics were entirely responsible in only 10 cases. c.f. Table 12. 246 of the 306 were delivered in hospital, 56 were delivered at home and in 4 cases no information was available regarding the birth.

Fourteen deaths were associated with rhesus incompatability. Twelve died in hospital and two at home. In these two cases it was known that the mother was rhesus negative, with antibodies in the blood at the 36th week. Both women, however, resisted all efforts to persuade them to go to hospital for confinement. The number of deaths associated with prematurity and imaturity fell from 121 in 1954 to 108 in 1955.

Stillbirths.

There was a total of 480 stillbirths during the year, 84 of these elated to mothers living outside the City and 5 were inward transfers. 'he remaining 391 stillbirths were fully investigated, 14 of them were llegitimate and 377 legitimate. Sixty-two were delivered at home, 5 in ursing homes and one in the ambulance. 323 were delivered in hospital. Table 13.) **Parity**

Multiple Births

In 127 cases it was the first pregnancy, in 74 the second, in 59 th third and 47 the fourth pregnancy. The remaining 84 cases were fift and subsequent pregnancies.

Rhesus Factor

In four sets of twins all the infants died, in five sets the firstborn died, and in six sets the secondborn died. One further twin died bu it is not known whether it was the firstborn or not.

Ante Natal Care

In 26 per cent of the home deliveries the blood was not tested for th rhesus factor. This shows an improvement on the 1954 figure when 4 per cent of the mothers delivered at home did not have their blood testec

Causes of Stillbirths

The hospitals were wholly or partly responsible for the ante-natal ca in 251 cases, the general practitioners in 112 cases, and the clinic an midwives in 21 cases. Seven mothers did not have any ante-natal car

The causes are listed in Table 14.

MIDWIFERY SERVICE.

Hospital and Domiciliary Deliveries

During the year, 305 midwives gave the required notice under Section 15 of the Midwives Act, 1951, of their intention to practise midwifery in the City. (See Table 15.)

In 1955, 13,043 women were delivered in hospital and 4,700 were delivered in their own homes, of these, 3,838 cases were delivered by municipal midwives, 839 by Liverpool Maternity Hospital District Homes and 23 by midwives in private practice. (See Table 16.)

Nursing Homes

Babies born in nursing homes numbered 313, including 2 twin births.

Early Hospital Discharges

The average case load of the municipal midwives was 70. There was a total of 4,350 special visits paid by the midwives in addition to their ordinary routine work. Of these visits 1,732 were to maternity cases discharged from hospital before the 10th day and 1,708 were to maternity cases for investigation of home conditions.

Analgesia

Gas/air analgesia was administered in 3,088 domiciliary deliveries in 1955 as compared with 2,833 in 1954, and 2,427 domiciliary deliveries were given Pethidine as compared with 1,906 in 1954. (See Table 17.)

Work of the Supervisors

During 1955, 1,354 visits were paid by the administrative staff to midwives and 679 special visits were also paid by them in respect of special cases including puerperal pyrexia and patients with bad obstetric histories who refused to book at a hospital for confinement.

Medical Assistance

Under the rules of the Central Midwives Board midwives sought medical aid in 1,382 cases—1,069 mothers and 313 infants.

The total number of occasions on which consultant obstetricians were called in connection with obstetrical emergencies or complications was 60 (37 mothers and 23 infants).

The obstetric flying squad was called in 63 cases and in 37 of these blood transfusions were given.

During the year the midwives were called out by the ambulance service to 40 cases.

Puerperal Pyrexia

The Puerperal Pyrexia (Amendment) Regulations came into force in March, 1955, requiring the cause of the pyrexia to be stated.

The number of cases of puerperal pyrexia notified during the year was 808. Of these, 68 occurred in the practice of midwives and in 26 cases the services of a district nurse were provided.

Fifteen municipal midwives were suspended from practice in order to prevent the spread of infection.

Refresher Courses for Midwives

Five municipal midwives attended Royal College of Midwives post graduate courses of instruction during the year—2 at Bristol, 2 at London and 1 at Birmingham.

Part II Training of Midwives

The Part II midwifery training school, in conjunction with Sefton General Hospital, continues to develop. 25 pupil midwives completed their training during the year and qualified as midwives, an increase of 10 on the preceding year. One pupil has been appointed by the local authority to the position of municipal midwife and is proving very satisfactory.

Maternal Mortality.

Maternal Deaths

Ten deaths occurred which were due to pregnancy and childbirth. Three of them were associated with sepsis, one being a case of self-inflicted abortion, the remaining two died 23 and 25 days respectively post-partum, one from general peritonitis following infection of the genital tract and the other from a staphylococcal septicaemia following broncho pneumonia. Two died of pulmonary embolism on the 14th and 26th day respectively post-partum. Three were associated with toxaemia. Two died of haemorrhage, one was a forceps delivery in hospital and the other patient had a caesarean section for placenta praevia.

There were three deaths due to associated conditions, two being caused by mitral stenosis, and one died from carcinoma of the lung with secondaries in the brain.

Of the 13 deaths due to pregnancy and childbirth and associated conditions, only one, the abortion, did not have any ante-natal care. Six were admitted to hospital during the ante-natal period, two at 24 weeks, two at 22 weeks, one at 34 weeks and one at 37 weeks.

Two of the pregnancies were illegitimate, one of them had mitral stenosis and the other died from post-partum haemorrhage. Tables 9, 10 and 11.

Co-operation with General Practitioners.

Co-operation with General Practitioners

Meetings were held again during 1955 at the welfare centres, between the general practitioners and the public health staff. These meetings were a great success and took place in a most friendly atmosphere. Great credit is due to the health visitors for the delightful afternoon teas which they provided, and also for the excellent way in which their health education material was displayed.

Health Visitors

Midwives

The midwives continued to work in close co-operation with the general practitioners. When a domiciliary midwife books a patient, a formal note is sent to the patient's private doctor to find out whether he wishes to supervise the pregnancy. If he does so, he is asked to state whether he wishes to be present at the confinement or merely to be called in case of emergency.

Thirty-one groups of general practitioners in the City had midwives attending their ante-natal clinics, this enabled the midwife and the doctor to examine their patients together. In these cases the midwives themselves carry out intermediary examinations of their patients as requested by the practitioners. This type of co-operation is welcomed by both the doctors and the midwives, and gives the midwives a better opportunity of getting to know their patients in the doctors' booked cases. When possible, the midwives arrange a rota to attend the doctors' clinics and as they work in groups of 2, 3 or 4, they are thus enabled to see their partner's patients with the doctors, so that if they are called in an emergency they are familiar not only with their own but with their partner's cases.

Liverpool is fortunate in having an exceptionally active group of voluntary societies.

Meeting of Voluntary and Statutory Organisations for Case Discussion

It is apparent that the workers from both the voluntary and statutory bodies must have many common problems. For this reason a liaison committee was formed by the Personal Service Society and their case workers meet once a week to present their problems to a panel of representatives from statutory and other voluntary organisations. The Children's department, School Health service, Probation officers, Diocesan Board of Moral Welfare, Family Service Unit and hospital almoners are some of the services represented.

In October, 1955, an invitation was extended to the superintendent health visitor to attend this committee, the medical officer of health also attends the majority of the meetings. The health visitors find this liaison of very great help to them in the course of dealing with their many and varied problems.

Ophthalmia Neonatorum

Special attention is paid to cases of ophthalmia neonatorum and two nurses devote their full time to the supervision of infants treated at home. During the year, 570 cases were brought to the notice of the department (including 106 notified cases). Of these, 539 were mild and 31 severe cases. In no case was vision either lost or impaired, one case was treated in hospital. 5,863 visits were paid by the ophthalmia nurses.

Arrangements are made with the City Bacteriologist for the examination of discharge from inflamed eyes in the newly-born in special cases. Out of 570 cases traced, none was found to be due to gonorrhoea.

Day Nurseries.

Private Day Nurseries

There are two private day nurseries, the Adam Cliff with 60 places and 4 Oak Terrace with 32 places. They are inspected periodically by the local authority medical officers, who also undertake routine medical examinations of the children. The matrons of both nurseries are very pleased to have this service. In the Adam Cliff Nursery the local authority pays an annual grant towards the expenses and 50 per cent of the admissions are referred by the local authority.

Daily Minder

One state registered nurse has registered with the local authority as a daily minder, and is registered to mind 6 children. This minder is

visited from time to time by the local authority medical officers and the health visitors pay frequent visits to advise her on the care of the children and on any other problems.

Local Authority Day Nurseries

There are 14 local authority day nurseries with a total of 778 places.

It is anticipated that work will commence on the site of the new day nursery in Shaw Street in 1956, and that the building will be ready for occupation in 1957.

The premises of three of the local authority nurseries are not satisfactory and it is hoped that they will all be closed on the completion of the new nursery. One of them may be closed earlier. The three nurseries which are unsatisfactory are Salisbury Street, Mill Road and Holly Road. In Salisbury Street the nursery is held in three small classrooms in a Junior Mixed and Infants School. Mill Road day nursery is held in a section of the Mill Road Maternity Hospital. Both premises are totally unsuitable for use as peacetime day nurseries. During the past two years unsuccessful attempts have been made to purchase the premises at 12 Holly Road. This property was requisitioned for a day nursery in 1943 and the owners are unwilling to sell. During November and December, however, there was a decline in the number of applicants for places in this area, and it is thought that it may be possible to close it during 1956.

Refresher Courses

During 1955 a refresher course was held for matrons and deputy matrons, it comprised ten lectures given at weekly intervals, as follows:-

Health Service ...	... Deputy Medical Officer of Health.
The Problem Child	... Professor of Child Health.
Respiratory Infection	... A Paediatric Consultant.
Deaf Children ...	... Deputy Principal School Medical Officer.
Infant Feeding ...	... A Paediatric Consultant.
Adoptions	... The Children's Officer.
Children at Play ...	... Adviser for Nursery Education.
Children at Play ...	... Adviser for Nursery Education.
Food Hygiene ...	... Chief Sanitary Inspector.

The final one was a lecture demonstration, given by a speaker from the North Western Gas Board, on Cookery. The lectures were greatly appreciated by the staff.

Private Nursing Homes.

	No. of Beds.	Medical.	Maternity
Greystoke Nursing Home, 25, Aigburth Drive, Liverpool, 17.	25	22	2
Springfield Nursing Home, 21, Newsham Drive, Liverpool, 6.	5	0	5
Rosslyn Nursing Home, 202, South Mossley Hill Road, Liverpool, 19.	5	5	0
Lynwood Nursing Home, 32, Parkfield Road, Liverpool, 17.	18	12 Medical and Surgical	6
Elmswood Nursing Home, North Mossley Hill Road, Liverpool, 18.	12	0	12
Holmleigh Nursing Home, 61, Russian Drive, Liverpool, 13.	18	18	0
Lourdes Private Hospital, 57, Greenbank Road, Liverpool, 15.	21	21 Medical and Surgical	0
Virgo Potens Hospital, Rose Brow, Gateacre, Liverpool.	32	32 Medical and Surgical	0
The Half Way Hostel, 25/27, Sefton Drive, Liverpool, 17.	18	18 Geriatric.	0

The above-named nursing homes were on the register at the end of the year.

Home Nursing Equipment.

Home Nursing Equipment

The scheme for the loan of home nursing equipment established in accordance with the provisions of Section 28 of the National Health Service Act, 1946, to patients being nursed in their own homes, functioned very satisfactorily during 1955. The scheme is supervised by one of the deputy superintendent health visitors.

No charge is made for the loan of the equipment, nor is any restriction placed on the number of different articles which may be borrowed by any one patient. A deposit—refundable on the return of

the equipment—of one-tenth of the value is required, however, where the cost of an article exceeds one pound. Loans are made for three-monthly periods and extensions are granted at the request of the patients doctor.

A health visitor calls on these patients to assess their needs, and to advise on the use of the equipment. Frequently the health visitors are able to give assistance with other problems affecting the patient's mental and physical comfort.

For the future, there is good reason to believe that the demand has not yet reached its peak and it is to be expected that as the public becomes increasingly aware of the existence of the scheme, so proportionately, will the number of applications for assistance multiply.

During 1955 there was a steady increase in the demand for home nursing equipment. Table 18 gives some idea of the very great increase in the volume of work carried out in connection with the scheme. During 1952, 368 articles of equipment were loaned and in 1955, 1,948 articles were loaned.

It is necessary to keep a check on all items on loan and to arrange for their return as soon as they are no longer required. Increased use had, of course to be made of the local authority transport for the delivery and collection of this equipment.

DISTRICT NURSING

The home nursing service is carried out by the Liverpool Queen Victoria District Nursing Association acting as agents for the Local Health Authority.

Staff

At the 31st December, 1955, the nursing staff was comprised as follows:—

1 Senior Superintendent of Home Nursing.
1 Tutor.
3 Superintendents.
5 Assistant Superintendents.
61 Queen's Nurses full-time.
3 Queen's Nurses part-time.
1 State Registered Nurse full-time.
11 State Registered Nurses part-time.
10 Student District Nurses.
10 State Enrolled Assistant Nurses.

which, in terms of full-time staff, was 9 nurses below the approved establishment.

The district nurses give no service, excepting an emergency first visit, unless instructions are received from a doctor. The doctors referring patients are mainly in general practice, but some cases are referred from hospitals on a special form provided for the purpose.

The family doctor is advised by the hospital when his patient is referred for home nursing and subsequent to the patient's discharge instructions in regard to nursing are taken from the family doctor.

Visits

During 1955, 418,923 visits were paid to 23,015 cases as follows:—

	Cases.	Visits.
Medical	17,721	309,793
Surgical	3,821	61,256
Infectious Diseases	84	555
Tuberculosis	998	42,500
Maternal Complications	190	1,712
Others	201	3,107
	23,015	418,923

Nursing the Aged Sick

Nursing the aged sick forms a large part of the work done. The nurses attended 7,210 patients who were over 65 years of age, necessitating 178,646 visits.

Nursing Care of Infants

An analysis was made during the year of the visits paid to infants under one year. Of the 735 children treated, 422 had infections of the respiratory system and 146 had otitis media. Of the 61 children under one month, 29 had some form of sepsis. c.f. Table 19.

Injections

The giving of injections to both adults and children comprised a considerable volume of the work carried out. 74,667 injections of insulin were given, 86,781 of Penicillin, 40,688 of Streptomycin, 27,156 of Haematen, and 50,828 other injections.

General

Nursing visits were made between the hours of 8.30 a.m. and 1.30 p.m., and 4.30 p.m. and 7.30 p.m. daily. Morning and evening visits were always paid to ill patients requiring twice a day visits, and a skeleton staff was on duty each evening until 10.30 p.m. for "emergency calls" and for those ill patients requiring late morphia injections.

Minor Ailments Clinic

A minor ailments clinic which was opened at the Central Home in 1950 continued in use during 1955, and the statistics for 1955 are shown in Table 20.

Training of Queen's Nursing Sisters

The training of District Nurses has continued throughout the year; 19 nurses qualified as Queen's Nursing Sisters during 1955. Of these, 11 were trained for the Liverpool staff, 2 were trained on behalf of other County Borough Authorities, 5 on behalf of County Authorities and 1 by special arrangement.

At present the course of training is for six months for state registered nurses, or four months for nurses who are health visitors, midwives, nurse teachers or district nurses with at least 18 months' experience in district nursing.

A block system of training has been adopted in which the lecture course is concentrated into one month. During this time all lectures are given, the students doing purely theoretical work. The remaining period of training is spent in tutorials, study classes, visits of observation and practical work.

Mobile Physio-therapy Service

The mobile physiotherapy service of the Liverpool Queen Victoria District Nursing Association, which was commenced on the 1st January, 1946, and has now been operating for 10 years in the City of Liverpool, comprises three units (Ford 10 cwt. Thames vans) staffed and driven by three Chartered Physiotherapists.

Each unit is fully equipped to give radiant heat, infra-red rays, ultra-violet light, high frequency and Q-ray pads, working from the electric supply in patients' houses; battery equipment is also carried for giving galvanic and faradic treatments so that some electrical treatment can also be given if necessary in patients' houses which have no electric supply. Paraffin wax is also carried and used for various conditions.

The majority of the patients are elderly and all are for one reason or another, unable or unfit to attend hospital out-patients for treatment. Cases are referred by hospital specialists and general practitioners, and during 1955 the three units gave a total of 4,086 treatments and made an extra 170 non-treatment visits for various reasons.

In addition to the equipment carried, a small stock of apparatus and appliances are available to patients on loan including Remploy tripod walking sticks. These have proved invaluable in enabling patients to become mobile much earlier than with the use of ordinary walking sticks.

This service is, unfortunately, not covered or embraced in any way by the National Health Service, it is entirely dependent upon patients' payments, voluntary donations and subscriptions and a half-share of the proceeds of investments, and since the majority of the patients are pensioners their contribution towards working costs are naturally small and inadequate, but the courses of treatment are often, of necessity, lengthy.

Through this service being available to them, elderly chronic patients are kept in a state of moderate mobility thus relieving the hospitals of potential in-patients.

THE HOME HELP SERVICE.

Service was provided for 2,073 families during the year. This number included :—

Maternity cases	342
Tuberculosis	25
Chronic sick and aged	1,428
Others	278

Maternity cases include help for expectant mothers, home confinements and after care of mothers confined in hospital. The service was usually provided for a temporary period. **Maternity**

There were many patients in need of daily service for an idefinite period because the circumstances were such that alternative arrangments could not be made and the removal of the home help would have caused hardship. **Chronic Sick**

Home helps attending these patients frequently visited two hours daily to light fires, to prepare meals and to be as useful as possible. Experience has shown that as little as two hours service per day is often sufficient to keep the patient in her home.

An unusually sad case was that of two elderly persons who were completely blind and deaf. The wife was very ill and as her husband refused to allow her to be removed to hospital, the home teacher for the blind asked this department for help. The patients were naturally suspicious of strangers and the home help found that all linen and utensils were parcelled and locked away. She was not able to communicate with them and urgent requests, for linen particularly as the wife was incontinent, had to be relayed to the home teacher who then made an extra call. Eventually, however, they decided that the home help was honest and allowed her to have the keys. Service continued until the death at home of the wife

Most of the aged applicants are provided with help for four hours per week and the number receiving this service was 566 in the week ending 31st December, 1955. This type of service is reserved for those who are aged and infirmed or for younger handicapped persons who cannot afford to pay for other assistance. **Aged**

Applications

The source of origin of cases:—

Relatives and friends	1,196
Doctors, Midwives, District Nurses and Hospital Almoners	708
National Assistance Board	296
Others	287
	2,487

Administrative Staff

The administrative staff consisted of:—

1 Organiser
1 Assistant Organiser
2 Clerks
2 Visitors.

Number of visits made was 5,727.

Home Helps

The number of home helps employed at 31st December, was 130 which was insufficient to meet the demand for service. Recruiting the right type of staff was difficult, despite the assistance of the Ministry of Labour, but the position has since improved and the number increased.

Many of the home helps devoted free time to the care of their patients, particularly the aged who were without relatives and who had outlived their friends. Several were entertained in the homes of the staff and it was quite usual to find that the home help had provided her patient with a portion of her family dinner on Sunday.

HEALTH EDUCATION.

Health Education

During the year, routine health education continued as usual with doctors, health visitors, sanitary inspectors, duly authorised officers, welfare visitors and other public health workers carrying out most of the education in the course of their daily duties. This form of individual health education is undoubtedly the most valuable.

Posters, Leaflets.

Suitable posters have been displayed in clinics and various public places throughout the city, and leaflets have been made readily available to all the public health workers where required.

Booklets

A new edition of the Health Handbook for Liverpool was brought out during the year, containing up-to-date information about all the health services provided by the public health department. In addition, a booklet was brought out on the subject of safety in the home. It is now apparent that the problem of accidents within the home has become proportionately more important, particularly in the case of young children. Infectious diseases have been conquered, but accidents in the home have remained at a steady level. A general all-out drive has been in progress to reduce as far as possible this waste of life.

The department's explanatory brochure on mental deficiency has proved of interest not only to the parents for whom it is primarily intended, but also to social workers and others, and it is felt that the dissemination of information in this easily digested form is a useful educational measure.

Exhibitions

For the first time the health department exhibited in the Liverpool Show. The main themes taken were maternity and child welfare, and clean food. Attractive exhibits were arranged in a marquee, including many models, and a film show of suitable films illustrating the subjects was constantly in operation. Considerable help was given by various local traders and statutory bodies, for which the department is most grateful. As judged by the interest shown by the general public in the exhibition, it is fair to say that the exhibit was a success. It also had the great advantage of bringing closer together many members of the public health staff who do not usually have much opportunity of working together. There is no doubt that this venture was well worth while, and it is hoped it will be repeated.

A second exhibition was put on in conjunction with the Ministry of Agriculture, Fisheries and Food, in November, at the School of Hygiene, when the "You versus Pests" exhibition was shown. This exhibition was open for two weeks, and created great interest, 8,146 people visiting it. Its purpose was to draw attention to the serious damage to food caused by insects and rodents. Live specimens of insects found in stored foods were displayed, together with illustrations of food damaged by these pests. During the exhibition, lectures were given to trade organisations upon methods of disinfestation and control. The section on rodents included live rats and mice, also methods for the destruction of these pests. Inspectors were also available to advise on individual problems.

This exhibition also dealt with the vast problem of smoke abatement, and the most efficient and economical method available for the reduction of atmospheric pollution. In addition to methods of smoke detection, a number of appliances for the burning of smokeless fuels were on display. The inspectors on duty were asked many questions with regard to the problems associated with atmospheric pollution, smoke abatement and smokeless areas. This important subject, which is so prominent, due no doubt to press reports, is wakening the interest of the citizen who wants to know the steps being taken to ensure a clean atmosphere free from impurities. The University School of Hygiene Museum was open during the exhibition and lectures were also given daily on various subjects, including water supply, sewage disposal, and atmospheric pollution.

Mental Health

The subjects of mental illness and mental dificiency have evoked more than usual interest among the public, and have been prominently featured in articles in the local press. A number of talks have been given to associations and voluntary bodies as well as courses of lectures to more specialised medical and nursing groups.

Film Strips

Considerable use was made of the film strip of the department, with great success, and also other film strips. The film strip as an essential part of the lecture has proved a great boon, and it is now being used extensively. The lecturing staff has been considerably enlarged during the year to cope with the increased demand, and every week there have been two or three lectures somewhere in the city on health education.

General Health Education

Numerous lectures have been given both during and after duty hours to various voluntary associations, including church organisations, Youth Clubs, Scouts and Guides, on general public health and food hygiene, particularly. In addition, special attention was directed to trade organisations, shops staffs and catering associations, on the latter subject. Members of the staff were also concerned in giving a course of instruction on the Social Aspects of Diseases to all student nurses in most of the hospitals in this City, and weekly lectures are also given to further education classes.

Lectures on hygiene as applied to hotels and licensed premises formed part of a course for licensees and bartenders, organised by the National Trade Defence Association. During this session, films, "Another Case of Food Poisoning", "Behind the Menu", and "House Proud" were shown. Group teaching has increased in the Child Welfare Centres, where talks have been given on varied subjects, ranging from the care of the child to food hygiene, or prevention of accidents and infectious diseases. These talks were also aided by the use of models, flannel graphs and blackboard.

INFECTIOUS DISEASE.

SUMMARY.

Number of confirmed cases of infectious diseases reported during 1955 :—

Enteric Fever—(2 Typhoid F ; 3 Paratyphoid F) ...	5
Scarlet Fever	528
Measles and German Measles (15)	6,013
Diphtheria	1
Cerebro-Spinal Fever	31
Puerperal Pyrexia	808
Ophthalmia Neonatorum	106
Erysipelas	67
Poliomyelitis—Paralytic	38
Non-Paralytic	8
Pneumonia, Acute Primary and Influenzal Pneumonia	517
Dysentery—(Sonne 907 ; Flexner 13)	920
Whooping Cough	2,490
Food Poisoning	544
Malaria (contracted abroad)	10

No cases of Plague, Smallpox, Typhus Fever or Anthrax occurred during the year.

Typhoid and Paratyphoid Fevers.

Typhoid and Paratyphoid Fevers

Two cases of typhoid fever and three cases of paratyphoid B fever were recorded during the year.

The two cases of typhoid fever occurred in a family of three who were infected during a painting holiday at Toledo in Spain. Both the father and mother developed a typical clinical illness on the 14th of July, a week after their return to this country. Investigations showed that the daughter also had had a slight enteritis whilst in Spain. The two parents were admitted to the tropical ward of the Liverpool Royal Infirmary. Faeces and blood cultures revealed both cases to be S.typhi vi phage type 34. They were then transferred to the Isolation Hospital together with their daughter. Previous to the onset of the illness they had stayed for seven days in Childwall with friends before intending to return to their home in Leeds. Investigation of all their contacts revealed no

further cases. The daughter was found to be negative, although it was suspected that her mild illness in Spain had probably been an attack of typhoid. The two cases made an uneventful recovery.

The three cases of paratyphoid B occurred in two children aged 12, and a man aged 33 years. The first case occurred on 7th August, the second on 23rd August and the third on 6th September. No common connections were discovered between the three cases, two of which were phage type dundee, and the remaining case vi phage type 3A. No source of infection was discovered, and despite the examination of a wide range of contacts, no further cases and no carriers were revealed.

Register of Chronic Typhoid and Paratyphoid Excretors.

Register of Chronic Typhoid and Paratyphoid Excretors

Examinations of two chronic typhoid carriers and five paratyphoid B carriers have been continued throughout the year. This is an increase of two since 1954. One paratyphoid carrier has been proved to be clear throughout the year, following routine examinations.

This new carrier, a young man aged 22 years, was discovered by the Army medical authorities during routine examinations following a paratyphoid outbreak at Fayid, in the Canal Zone, in November, 1954. Despite treatment he remained a carrier of paratyphoid B type 2.

Whooping Cough.

Whooping Cough

During the year, 2,490 cases of whooping cough came to the notice of the Health Department, a figure representing a case rate of 3·2 per 1,000 of the population. Four cases proved fatal, three cases under age of one year and one under age of two, corresponding to a death rate of 0·05 per 10,000 of the population.

There was an increase of 557 cases as compared with the 1954 figure of 1,933.

Diphtheria.

Diphtheria

During 1955 one case of diphtheria was confirmed.

This case was a virulent intermedius type and, unfortunately, proved fatal.

History of the case :—

On Sunday, 8th May, a young girl aged 10 years developed a sore throat. By the evening she was restless and had a slight elevation of

temperature. The following day her condition had worsened and the family doctor visited and took a throat swab. By that evening her condition was serious and she was removed to a Children's Hospital. The following day (Tuesday) the swab result revealed the presence of diphtheria and the child was transferred to isolation hospital. Specific treatment was instituted and, although the child improved at first, she died (14 days from the onset) on 22nd May from cardiac failure. Enquiry revealed that the child had never been immunised against diphtheria. If she had been protected by immunisation, then it is most unlikely that the case would have had such a tragic ending.

Investigation of the home contacts revealed the following details regarding their immunisation state.

Sex	Age	Inoculation state
Female	12 years	Never inoculated.
Female	21 years	Never inoculated.
Male	23 years	Never inoculated.
Female	25 years	Never inoculated.
Female	29 years	Never inoculated.
Female	51 years	Unknown.
Male	53 years	Unknown.

There was no other case of diphtheria or carrier discovered in the family. Investigations at the school revealed no further cases or carriers. It is of interest to note that there was a boy aged 7 years, a virulent intermedius diphtheria carrier living in Huyton discovered following an outbreak of diphtheria in that area during April and May. A close and thorough investigation revealed no known contact between this case and the fatal Liverpool case, and it was not possible to trace the source of this infection.

Schick Testing of Nurses.

Schick Testing of Nurses

During 1955, a total of 41 probationer nurses were Schick tested at the Royal Southern Hospital. Of these, 11 were Schick positive and susceptible to diphtheria and 30 were Schick negative and immune. The 11 susceptible nurses were offered protection with P.T.A.P.

Measles.

During the year, 5,998 cases of measles were reported, representing a case rate of 7·7 per 1,000 of the population. There were two deaths making a fatality rate of 0·03 per 100 cases and a mortality rate of 0·26 per 100,000 of the population. The deaths occurred in children aged 10 and 14 months, respectively. **Measles**

There was a decrease of 2,601 in the number of notified measles cases as compared with 1954 figure of 8,599.

Poliomyelitis.

Forty-six confirmed cases of poliomyelitis occurred during the year, 38 paralytic cases and 8 non-paralytic cases, an increase of 11 compared with 1954. One case was fatal. **Poliomyelitis**

The following is a summary of the age incidence. There were 21 patients under 5 years of age and a total of 40 under 15 years of age.

Age	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35+
MALE								
Paralytic cases ...	10	3	4	—	—	—	—	1 died
Non-Paralytic cases	—	2	2	—	1	—	—	—
FEMALE								
Paralytic cases ...	9	7	1	1	—	1	1	—
Non-Paralytic cases	2	—	—	—	1	—	—	—

Of the paralytic cases a four month old baby had had smallpox vaccination a month previous to the onset of paralysis, and an eight month old baby had had a whooping cough immunisation injection within a month of the onset of poliomyelitis. Although this is an increase of 11 cases upon the number for the year 1954, it is a relative low incidence when the country is considered as a whole. Thirty-two of the cases had their onsets between 27th June and 30th September, the usual period for epidemic outbreaks of this disease.

Attempts were made to establish a connection between the cases. They were not localised in any one area of the City, 29 of the City's 40 wards

had poliomyelitis cases. However, 3 cases did occur in one family of five. All were paralytic and the father, aged 36 years, died. The following is a brief description of this family outbreak:—

Family Outbreak of Poliomyelitis

The first case occurred in a boy aged 6 years who became ill on 23rd July. He was removed to hospital on 29th July, and diagnosed as suffering from paralytic poliomyelitis. 17 days later his brother, aged 14 years, developed similar symptoms including paralysis of his right leg. He was immediately transferred to hospital. The following day (9th August) the father, aged 36 years, who was employed as a hospital radiographer, complained of stiffness in the back of the neck and dizziness. He was immediately admitted to hospital but died 8 days later on 17th August.

His wife, a daughter aged 5 years, and mother-in-law living in the same house were unaffected and developed no suspicious symptoms. The two children who developed paralysis recovered although some residual palsy remained.

School and work contacts were kept under surveillance by health visitors for a period of three weeks from the date of onset of the last case. No illnesses were recorded amongst the contacts. The initial source of this tragic family outbreak was believed to be the son aged 6 years. No traceable connection was established with other cases of poliomyelitis.

Food Poisoning Re-organisation.

Food Poisoning Re-organisation

As a result of the keen interest shown by the Liverpool Catering and Food Trade in food hygiene, and with the Food and Drugs Act, 1955 in mind, the method of investigation into cases of food poisoning and ingestion diseases was re-organised during 1955. A senior inspector and a number of district inspectors have been specially trained for this work and the modernisation of existing administration completed.

Recording on Maps

All notifications of food poisoning, dysentery and salmonella infections are recorded by coloured pins on three large-scale maps of the City. One map will record all notifications of food poisoning and ingestion diseases, one will record confirmed *Salmonella* infections, and one will record confirmed cases of dysentery. This arrangement will indicate the extent and trend of infection in the City and assist in tracing the source of the outbreak.

Report Cards

A new report card for all ingestion diseases is now in use which enables the inspector to obtain detailed and accurate information. From this card a permanent record of infection is being established using modern statistical cards which can be analysed quickly. This record is now essential as the Food Hygiene Regulations 1955 require food handlers suffering from certain infections to notify the medical officer and these notifications will be added to the register.

Collections of Specimens

The speedy collection of specimens for delivery to the Public Health Laboratory for bacteriological examination is vital in an investigation. The unavoidable time spent by qualified inspectors on this work was, however, causing concern, as routine inspections could not be maintained. This has now been overcome by the appointment of an assistant inspector using a motor-cycle to collect all specimens, so releasing the qualified inspectors for urgent duties.

Food Poisoning

544 cases of confirmed food poisoning occurred in Liverpool during 1955. This figure shows an increase of 276 (103 per cent) on the 268 cases reported in 1954. Of the 544 cases, 231 were due to staphylococcal toxins and 313 were due to salmonella organisms.

The increase over the number of 1954 food poisoning figures is believed to be partly due to the long hot dry summer experienced during 1955, and partly due to the increasing investigation and attention directed in Liverpool to food hygiene. Every notified or suspected case of enteritis has been exhaustively investigated. The general practitioners are notified of all results and where a case occurs within a family, all family contacts and contacts within the household are examined bacteriologically for evidence of cases and carriers. This has brought to light a considerable number of symptomless carriers especially among food handlers.

Co-operation during the year from general practitioners, food firms, and restaurants concerned in the investigation of outbreaks have been helpful and cordial.

The following brief accounts of some of the larger outbreaks which occurred may prove of interest :—

Staphylococcal Toxin Food Poisoning at a Luncheon

An outbreak of food poisoning occurred in April following a luncheon for 140 persons, held in a large restaurant in Liverpool. Altogether 54 persons were affected.

The full details of the enquiry which followed have been published in "The Medical Officer" of the 22nd July, 1955.

The main features of the outbreak were as follows:—

Source of infection.

The only foodstuff eaten by all 54 victims were potatoes. These were new potatoes boiled and served whole. Inquiry showed that there had been a large dinner party in the restaurant two days previously when too many new potatoes had been prepared and cooked. The excess of these potatoes were then stored in a container and placed in the vegetable kitchen over the week-end, and used, together with some newly prepared potatoes for the luncheon, and it was estimated that the left-over potatoes formed approximately one-third of those then eaten.

An interesting feature is that 86 attenders of the luncheon who ate the full meal had no ill-effects. It was significant that approximately two-thirds of the potatoes used for the meal had been freshly prepared.

The evidence suggested that this outbreak was caused by *Staphylococcal* toxin present in the left-over potatoes and introduced by hand and nasal carriers amongst the kitchen staff who handled the potatoes.

The dangers of storing milky products in warm conditions are well known. This outbreak suggested that cooked potatoes can also be a source of danger in this respect.

A second outbreak of food poisoning occurred at a restaurant following a Christmas meal on the evening of the 7th December, involving a party of nine, and a separate party of five.

Abdominal pain and diarrhoea occurred in all cases 4-12 hours after the eating of the meal. All complained of the bread sauce which was the common factor. Investigations revealed *Staphylococcal* organisms on the hands of five food handlers employed in the kitchens, including the person who prepared the sauce. It was further discovered that the head chef had an infected false eye socket containing the same

organisms. Examination of three specimens of bread sauce made up the previous day and left to stand overnight revealed *Staphylococci* contamination, and examination of the victims' stools showed the presence of similar organisms. In conclusion, it was decided that this outbreak was due to *Staphylococcal* toxin poisoning due to contaminated bread sauce.

School Outbreaks of Food Poisoning.

School Outbreaks of Food Poisoning

Staphylococcal Toxin Outbreaks

Eleven of the teaching staff and 29 pupils at a primary school suffered an acute attack of diarrhoea commencing about 3-12 hours after consuming the mid-day school meal on 1st June. Enquiries revealed the outbreak to be due to *Staphylococcal* toxin present in apple puree served as the sweet at the meal. A tin of the apple puree obtained from the kitchen showed the presence of these organisms.

Three separate food poisoning outbreaks occurred during 1955 at another school.

The first outbreak occurred on 2nd May. There were 9 victims and enquiries revealed that the food poisoning was due to *Staphylococcal* toxin present in the meat served at the luncheon.

The second outbreak occurred on 9th September and involved 81 scholars and 5 teachers. These victims had severe symptoms consisting of abdominal pain, vomiting and diarrhoea. Investigations revealed the presence of Staphylococcal *organisms* in the meat and on the hands and in the stools of the food handlers.

The third outbreak occurred on 12th October, and a total of 61 scholars, 2 teachers and 2 canteen assistants were affected. The symptoms were similar to those in the previous two outbreaks, and once again investigations showed that the outbreak was caused by *Staphylococcal* toxin present in the meat consumed at the meal.

A careful investigation of the meat preparation revealed that the beef in the form of four small joints was delivered to the meal kitchen on Tuesday, 11th October, and cooked the same afternoon. Owing to it being too warm to place in the refrigerator at the time the staff left the building, it was covered and left overnight on top of the range. The following morning, most of the meat was sliced and sent in containers

to the school. One joint was, however, re-cooked on the Wednesday morning and it was this part that was served to 23 grammar school children and kitchen assistants who were not affected by food poisoning.

It was ascertained that one of the school kitchen staff had not been well for several days, and had slight diarrhoea. During the previous two outbreaks, she had been positive for *Staphylococcal* organisms on her hands and in her stools.

Comment.

These three outbreaks revealed a lack of kitchen cleanliness and hygiene technique. Although the day-to-day cleanliness of the kitchen was adequate, the food containers were not being sterilised. Recommendations as to reconditioning at the school servery and washup were made. It was also emphasised that food cooked the day before it is to be consumed must be placed in a refrigerator overnight, and that any unusual appearances in the state of the food must be reported.

Salmonella Typhi Murium Food Poisoning.

Salmonella Typhi Murium

An outbreak of *Salmonella typhi murium* food poisoning occurred in the vicinity of Liverpool and Manchester, and the following is a brief account:—

On the 3rd July, 1955, a report was received from the medical officer of health for Salford, that 12 cases of food poisoning had occurred in his area, and that in each case the victim had eaten roast pork supplied to a local shop by a Liverpool firm.

A further report from the medical officer of health for Irlam indicated that 24 cases of food poisoning, due to *Salmonella typhi murium* had occurred, and that in each case, roast pork and tongue supplied by a Liverpool firm, had been eaten by the patient.

Samples of the suspected food were examined and, at the same time suspected foods were withdrawn from sale. Investigations showed heavy contamination of the roast pork with *Salmonella typhi murium.* One case reported by the medical officer of health for Manchester, and one case reported by the medical officer of health for Swindon were found to be due to eating roast pork supplied by this same firm on 25th July.

It was ascertained that between 22nd and 28th July, 35 cases of *Salmonella typhi murium* infection occurred in one small area of Liverpool. Investigations showed that 27 of these cases had eaten pork or ham purchased from one shop, supplied by the suspected wholesale firm.

The food handlers at this shop were examined and proved negative. The wholesale meat firm's premises were thoroughly examined and extensive meat sampling, extending over a period of four weeks revealed no evidence of *Salmonella* infection. Eleven vanmen/salesmen and 27 food handlers within this factory had extensive and repeated examinations extending over a period of four weeks. All proved negative with the exception of one woman who proved to be excreting *Salmonella thompson.*

There was very strong epidemiological evidence that the roast pork delivered by this firm was concerned with these scattered outbreaks. It was noted that the firm had a number of casual workers who were constantly being changed. It may well be that the person responsible for infecting the pork had left by the time the investigation traced the source of the outbreak.

Salmonella Typhi Murium Outbreak at an aged persons hostel.

Salmonella typhi Murium Outbreak at an aged Persons Hostel

An outbreak of 15 cases of acute gastro-enteritis occurred between 13th September and 14th November at an aged persons hostel having accommodation for 31 aged persons, 4 resident and 3 non-resident staff. Of these 15 cases, 13 occurred in aged persons and 2 in the resident staff. It was significant that no cases occurred in the non-resident staff.

The symptoms varied between acute vomiting and diarrhoea lasting from 6 hours to 2 days.

Investigations showed that 2 old ladies were excreting *Salmonella typhi murium* and later it was proved that despite treatment, one of these ladies, aged 79 years, was a symptomless carrier. She was removed to hospital for extensive treatment of her carrier state. It is believed that she may have been the source of the outbreak.

Salmonella Stanley and Sonne Dysentery at a general hospital.

During 1955, 18 cases of *Sonne* dysentery occurred at a large general hospital, of which 9 cases occurred between 7th June and 1st July. The

first case occurred in a convalescent patient in D ward on 7th June. The source of infection was unidentified, but may have been due to a subclinical infection in another patient, or infected food sent in from outside. A nurse developed mild *Sonne* dysentery on 10th June, but did not report this until 16th June, when routine rectal swabbing revealed her infection. Between 12th and 24th June, four more patients developed *Sonne* dysentery and three others subclinical infection, making a total of nine cases. One patient died after cure of his dysentery, from other causes. The outbreak was considered terminated by 1st July.

Salmonella Stanley.

Salmonella Stanley

Between 12th June and 29th June, 55 cases of *Salmonella stanley* occurred, of which 34 were proved clinical cases, and 21 symptomless carriers discovered by routing rectal swabbing. A brief description of the outbreak is given, in the investigation of which the public health department and the hospital medical staff worked in close co-operation.

On the 12th June, a patient was noted to appear more ill than usual, and on 14th June she developed frank gastro-enteritis, which proved to be *Salmonella stanley.* Between 15th and 21st June, there was a sharp increase in the incidence of diarrhoea in the hospital as a whole, about 65 patients being affected. Fifteen of these patients, as well as a ward sister, a hospital porter and a cleaner, were proved to have *Salmonella stanley* infection. The incidence of diarrhoea remained above average (about 28 cases) from 28th to 29th June, and four of these cases were proved to be *Salmonella stanley.* Thereafter, the incidence of diarrhoea fell to about 12 cases per week, and no more infections were discovered. In addition, a total of 21 symptomless persons were found from 17th June to have subclinical *Salmonella stanley* infections. Proved cases occurred in about half the wards of the hospital, distribution being entirely at random. The picture was that of an explosive epidemic affecting the whole hospital for a period of seven days, with a smaller number of positive cases during the subsequent 7 days. At first, it pointed strongly to central contamination of some food supply. Extensive investigations including repeated examinations of all kitchen and bakehouse staff proved negative. This rendered unlikely the existence of a permanent carrier, but did not exclude the possibility of a temporary carrier. The alternative was that some article of food contaminated outside the hospital was responsible.

Between 4th June and 18th July, 5 clinical cases and 6 symptomless carriers of *Salmonella stanley* occurred in the Liverpool area. These 11 cases were widely distributed and no traceable connection with the hospital was discovered. No common foodstuff was traced.

The overall picture of *Salmonella stanley* during the months of June and July represented a widely scattered outbreak over the Liverpool area, concentrated principally in the hospital.

Other Salmonella Infections.

Other Salmonella Infections

313 cases of infection with various *Salmonella organisms* other than S. typhi or S. paratyphi came to the notice of the department during the year. This is an increase of 78·9 per cent upon the number of 175 reported during 1954.

A list of the varying *Salmonella organisms* is given :—

Salmonella	Typhi-murium	222
,,	Stanley	55
,,	Enteritides	16
,,	Anatum	5
,,	Thompson	4
,,	Oranienburg	3
,,	Muenchen	2
,,	Heidelberg	2
,,	Potsdam	1
,,	Gatuni...	1
,,	Cerra	1
,,	Cholera Suis	1
		313

It is of interest to relate the case of *Salmonella cholera suis.*

Case History.

Salmonella Cholera Suis

A woman aged 23 years was admitted to the Sefton General Hospital on 1st February, 1955 suffering from thrombocytopenic purpura. On 11th February a splenectomy was performed. Post operative recovery was uneventful until 17th February when the patient became pyrexial. On 22nd February, she complained of a severe pain in her chest and examination revealed a consolidated left lung. On 25th February, the left lower lobe of the chest was aspirated and three ounces of straw coloured fluid removed for examination which proved negative. On 4th March, as the patient was still pyrexial, a second aspiration was made. This was still negative for bacteria. On 10th March a diagnosis of empyema was made and on 12th March the chest was opened for a

loculated empyema discovered. This was drained and a drainage tube inserted. Examination of the drainage discharges revealed *Salmonella cholera suis*. Extensive examination of home contacts revealed no source of the infection and no known history of enteritis was elicited. The source of the *Salmonella* remained undiscovered.

Dysentery.

Bacillary Dysentery

During the year, 920 cases of confirmed bacillary dysentery were reported in Liverpool as follows:—

Sonne	907
Flexner	13

This is an increase of 426 or 86·2 per cent on the 1954 total of 494.

Day Nurseries.

Dysentery in Day Nurseries

There were, during the year, 12 mild outbreaks of *Sonne* dysentery making a total of 179 confirmed cases in the day nurseries. As a general measure all the children in the affected nurseries had specimens examined on three separate occasions following the occurrence of the initial cases, and all those found to be infected were excluded until three negative specimens had been obtained. Many children were absent for a considerable time, and in order to aid general practitioners, specimens from the families were examined and the practitioner notified of the results. In order to try and prevent symptomless or convalescent carriers amongst children being admitted to day nurseries for the first time and causing an outbreak, stool specimens were examined a week before the child was due to enter the nursery. By this means a considerable number of carriers were prevented from entering nurseries and starting outbreaks.

Sonne Dysentery Outbreak in a Day Nursery

The following is an account of a typical outbreak of *Sonne* dysentery in a day nursery:—

Between 14th April and 5th May, there occurred a total of 19 cases of *Sonne* dysentery in the children attending a day nursery, and two cases of dysentery amongst the nursing staff, making a total of 21 cases.

History of the outbreak.

On Tuesday, 12th April, the nursery matron observed that a baby aged 19 months, had loose stools. Accordingly, she advised the parents to consult the family doctor that evening. This was done, and the

doctor sent a faecal specimen to the Public Health Laboratory for examination. On 15th April it was reported positive for *Shigella sonnei*. Unfortunately, the child was readmitted to the nursery on 18th April, the matron stating ". . . as the symptoms had abated and the doctor believed the child to be all right". The matron was not informed until 20th April that this child had dysentery. Immediately she knew the diagnosis, the matron excluded this child and rectally swabbed 17 children in the nursery who were contacts. Seven of these were positive for *Sonne* dysentery, and 10 negative on 21st April. Twenty-nine further children, and 16 of the staff were swabbed on 21st April. Two of the nurses were now discovered to be excreting *Shigella sonnei* organisms as symptomless carriers.

Between 24th April and 5th May, a further 11 positive cases were discovered. During this outbreak, a total of 180 rectal swabs were obtained. The strictest precautions were taken over hygiene matters, and the premises thoroughly examined. A number of defects were discovered both in hygiene technique and nursery equipment. These defects were rapidly rectified. During this outbreak the nursery was closed to all new admissions. As a result of routine home examination, it was discovered that two families had parents with positive stools for *Shigella sonnei* and were symptomless excretors of this organism.

This outbreak served to emphasise to the young junior nurses working at the nursery the great need for personal hygiene and an opportunity afforded itself for them to put into practice lessons learnt in theory.

Flexner Dysentery.

Flexner Dysentery

Three cases occurred in a small outbreak in a hospital for children. The origin was rather obscure, but probably began with the admission of a child to the observation ward with a non-specific diarrhoea. He was discharged on 23rd September and re-admitted on the 4th October with diarrhoea and vomiting. On this occasion rectal swabs showed flexner organisms and B. Coli 0119.

The second case was placed in the observation ward on 22nd September because of diarrhoea. A swab on 26th September was positive for flexner and B. Coli 0119.

The third case was admitted to ward 4 on 29th September with haematuria and transferred to the observation ward because of diarrhoea, on the 4th October. A swab taken on this date was positive for B. Coli 0119 and a few days later flexner organisms were isolated.

It is possible that the initial symptoms of diarrhoea in the two children originally in the same ward were due to B. Coli 0119 and that case II was infected with flexner dysentery, case III being infected from case II.

All three were transferred to isolation hospital when swabs were positive for flexner dysentery and made uneventful recoveries. No further cases occurred in the Children's Hospital and all swabs from patients and staff of the observation ward and the other ward were negative.

Sonne Dysentery Outbreak at Westminster House.

Sonne Dysentery Outbreak Westminster House

Between 29th October and 17th November, 28 cases of *Sonne* dysentery occurred in the female section of Westminster House. A further 2 cases occurred between 1st and 5th December. With one of these cases it was a recurrence of the infection. One death occurred in a woman aged 70 in isolation hospital.

These 30 cases occurred in three of the seven female wards, as follows—

Ward 44—13 cases with one transfer to Ward 41.
House 11—6 cases.
Terrace—11 cases.

The following is a brief history of the outbreak.

The first case was admitted to House 11 from the Terrace on 25th October. On 29th October she had a severe gastro enteritis which proved to be *Sonne* dysentery. She was immediately transferred to isolation hospital. Two days later on 31st October, two further cases occurred, one in House 11 and one on the Terrace. The following day, three cases occurred in Ward 44. It was ascertained that one of these cases had been on the Terrace and had been a close contact of the first case. Between 2nd and 16th November, a further 22 cases occurred, distributed between House II, Ward 44, and the Terrace. The last four cases were discovered by routine rectal swabbing of all contacts on the Terrace and were

symptomless carriers. Between 17th November and 1st December, no further cases occurred, and it was believed that the outbreak had terminated. However, on 1st December, a further case of severe enteritis occurred in Ward 44, and this new case coincided with the five-day interval following the readmission of a treated case from isolation hospital. A rectal swab from this treated case revealed that once more she was excreting *Shigella sonnei* although then she was symptom free. Both these two cases were immediately removed to isolation hospital and no further cases occurred.

This outbreak is of interest as it was confined to three female wards in a large home for 878 elderly men and women. There appeared to be a definite "attack wave" of 4-5 days between each major increase in cases. That it was closely contained amongst the female inmates and only in three wards, suggests that the infectivity was from case to case. Epidemiologically, it would appear to be due to a carrier and not a food or milk borne outbreak. Careful investigation showed that the suspected carrier was admitted to Westminster House in March from hospital. On 25th July, whilst in Ward 50, she had an attack of *Sonne dysentery* and she was removed to hospital. At that time, she was the only case of *Sonne dysentery* in Westminster House. Following treatment she was readmitted to Ward 44. On 31st October, she collapsed with *Sonne dysentery*, removed to hospital, treated and returned on 20th November to Ward 44. Five days later in Ward 44, a close contact developed *Sonne dysentery*. By now, a carrier was suspected in Ward 44, and a rectal swab from this suspected person showed that she was a symptomless carrier. On removing both cases to hospital, the outbreak terminated.

During the investigations, a total of 1,480 rectal swabs were taken, and it is due to the excellent co-operation from all the staff of Westminster House that the outbreak was successfully prevented from spreading further amongst the aged persons.

Gastro Enteritis in a Residential Nursery.

Gastro Enteritis in a Residential Nursery

An outbreak of gastro-enteritis in which the causal organisms were B. Coli Types 0111, 055 and 0128, occurred in one of the residential nurseries. Out of 21 babies, a total of 16, between the ages of five months and $2\frac{1}{2}$ years, were affected.

The first baby (aged 8 months) to be affected, died 48 hours after the onset of the symptoms, which in his case were very mild. The post-mortem findings in fact suggested the cause of death was broncho pneumonia, possibly due to inhalation of vomit. A second baby whose symptoms of vomiting and diarrhoea started at about the same time, but were much more severe, was dangerously ill for a few days, but later made a complete recovery. The organism isolated in this case was type 0111.

No further cases occurred until 48 hours after the first two were removed to hospital, and in the following fortnight, 14 babies developed symptoms and were admitted to hospital. There were no other severe cases and all made rapid recoveries. Organisms isolated were one of the three types already mentioned. One baby only had a mixed infection, Types 0111 and 0128.

Rectal swabs were taken from all members of the nursery staff and all proved to be negative on three occasions. It must be assumed that spread of infection was due to lack of adequate precautions among the nursery staff.

Winter Vomiting at a Residential Catholic School for the Blind.

Winter Vomiting at a Residential Catholic School for the Blind

An outbreak of winter vomiting occurred at a large residential school for the blind in Liverpool resulting in 28 cases out of 98 children, ages varying from 4 to 15 years, 12 sisters, 7 teachers, and 16 domestics.

Twenty-seven of the children and one teacher were the victims. The first case occurred on 10th October and the last on 28th October, as follows:—

10.10.55	2 cases
13.10.55	2 cases
14.10.55	3 cases
15.10.55	7 cases
16.10.55	1 case
17.10.55	3 cases
18.10.55	4 cases
19.10.55	2 cases
20.10.55	3 cases
28.10.55	1 case (repeat of symptoms which occurred on 19.10.55)

The incubation period would appear to be short 1-3 days.

All these 28 cases had abdominal pain and vomiting, duration varying between ½ hour to 15 hours, the commonest time being ½ hour. In no cases were there any symptoms of diarrhoea. Four cases had temperatures of up to 102°, and 3 complained of violent ear-ache.

Bacteriological investigations revealed the presence of large numbers of pneumococci in the nose and throat swabbings of 10 out of the 28 cases on the 22nd October, and of these, 6 showed pneumococci in nose and throat swabbings on 2nd November. Vomit specimens, rectal swabs, and detailed virology examination of blood specimens at the Manchester Virology Laboratory revealed no evidence of a virus. Despite the negative results, it is thought that this outbreak was possibly due to a virus of the influenzal group.

Heat-treatment of Chinese egg albumen.

Research

Heat-treatment of Chinese Egg Albumen

During the year, the serious problem of heavily infected Chinese egg albumen imported into this country was defined. In many instances salmonella organisms and occasionally salmonella paratyphi B, were found present in this product.

Close liaison exists in Liverpool between the medical officer of health and manufacturing food firms, and experiments were commenced in July, in co-operation with a prominent local firm which dealt in large quantities of the product, to discover, if possible, a practical method of heat-treating the albumen so that it might be rendered safe.

Between July and December 1955, a total of 1,625 samples were examined from the cargoes of seven ships importing Chinese egg albumen. 226 (13·6 per cent) of these samples were found to be infected with salmonella thompson. No salmonella paratyphi B was isolated. A preliminary report of the research and experiments during 1955 was completed by the end of December, as a practical method of pasteurisation of the albumen had been evolved. This account was published in *The Lancet* on January 21st, 1956.

The results so far obtained would suggest that the final solution of the problem of infected egg albumen will probably be mass low temperature heat treatment. of this product. The aim of heat treatment should be to ensure that a temperature of 130° F is maintained in the albumen in the centre of the container for 4-5 days. It is estimated that in a hot room devised for this purpose it would be necessary to have an air temperature of 140° F and exposure of $5\frac{1}{2}$-$6\frac{1}{2}$ days after first placing the product in the room. It is important also to have free circulation of the heated air, and that the albumen is raised from the ground.

Further experiments and investigations are being carried out, and it is hoped that this important work will be completed during 1956.

Infectious Disease Consultations.

Infectious Disease Consultations

During 1955, 25 domiciliary visits were made by the Medical Staff at the invitation of General Practitioners as follows:—

Chickenpox	7
Poliomyelitis	6
Non-poliomyelitis	4
Rheumatic fever	2
Septic tonsillitis	5
Pemphigus	1

IMMUNISATION AND VACCINATION.

Diphtheria Immunisation.

Diphtheria Immunisation

Diphtheria immunisation is carried out at child welfare clinics, schools, and by general practitioners of the City. The total number of children immunised for the first time during 1955 was 10,119 and 7,212 received a booster inoculation. The age groups of the children inoculated during the year and an estimate of the percentages of the child population immunised during the past five years are given in the table below:—

	Under 1 year.	1–4 years.	5–9 years.	10–14 years.	Total under 15 years.
Primary Inoculations completed in 1955	3,945	2,690	3,317	167	10,119
Booster Inoculations completed in 1955	—	95	5,942	1,175	7,212
Percentage of child population immunised during past five years.	26·3%	45.8%	44.2%		—
Percentage of child population immunised	* 41.7%		79.3%		

* The maximum percentage of immunisation possible in children under one year where immunisation is given at about eight months, is 33%

It will be seen that it is now estimated that 79·3 per cent of the child population aged 5-14 years of age are at present protected against diphtheria by immunisation and that 41·7 per cent of the children aged 0-4 years are similarly protected.

A complete table of the number of primary immunisations carried out in the City and the exact places where these immunisations were given is below:—

NUMBER OF PRIMARY DIPHTHERIA IMMUNISATIONS.

Where or by whom immunised.	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Immunisation Clinics	8,902	8,482	9,824	8,219	5,973	6,442	5,316	4,896	3,920	3,974
Schools ...	8,862	5,709	5,510	3,471	2,858	2,941	3,307	3,586	3,732	2,943
Medical Practitioners	82	40	688	1,617	2,066	2,396	2,579	2,694	2,973	3,212
Miscellaneous	334	269	208	228	322	283	109	—	—	—
TOTALS ...	18,180	14,500	16,230	13,535	11,219	12,062	11,311	11,176	10,625	10,129

In addition to the above immunisations, 7,226 previously immunised children received a reinforcing injection either at school or at one of the clinics during the year.

Whooping Cough Immunisation.

Whooping Cough Immunisation

During the year an immunisation campaign against this disease was continued. The same arrangements used for diphtheria immunisation were carried out and whooping cough immunisations were offered at child welfare clinics and by general medical practitioners. During the year, 4,386 children had been immunised under this scheme.

Medical Research Council Whooping Cough Trials.

Medical Research Council Whooping Cough Trials

The whooping cough trial which was commenced in November, 1953, in conjunction with the Medical Research Council, was completed in May, 1955. 5,219 children were entered in the trials, and of these, 77[illegible] (14·9 per cent of the total) did not complete the course of injections. The remaining 4,442 entered the "follow-up" survey and are visited every month by the nurse investigators in order to obtain accurate records of the exposure of the inoculated children to infection from other children in the family or neighbourhood.

Since the onset of the trial, 660 children have been lost to observation for the following reasons:—

1. Removed outside the Liverpool area ... ... 61[illegible]
2. Exposed to whooping cough during inoculation period ... 3
3. Unco-operative parents 1
4. Developed whooping cough between 1st and 2nd injection
5. Deaths ... ...
   (i) due to tubercular meningo-encephalitis (11 months after 3rd injection);
   (ii) due to encephalitis (4 months after 3rd injection).

Blood Specimens.

Blood Specimens

150 specimens of blood were obtained from inoculated children between December, 1954 and May 1955.

Vaccination.

Vaccination

Vaccination of infants against smallpox is carried out by special clinics and by general practitioners in their own surgeries. The following table illustrates the number of births and the number of primary vaccinations given during the past three years:—

	1953	1954	1955
Births	16,022	15,742	15,268
Number of primary vaccinations	7,605	6,989	7,677
Number of re-vaccinations	1,222	240	204
Number insusceptible	57	—	—
	8,884	7,229	7,881
Number vaccinated at clinics	3,884	2,942	3,622
Number vaccinated by private doctors	5,000	4,287	4,259
	8,884	7,229	7,881

It will be seen that the gradual reduction in the number of infants vaccinated which had been noted in recent years has been better in 1955. The numbers vaccinated increased during the year by 652 in spite of a reduction in the number of births by 474. This satisfactory result has resulted from the increased efforts of all working in the child welfare clinics.

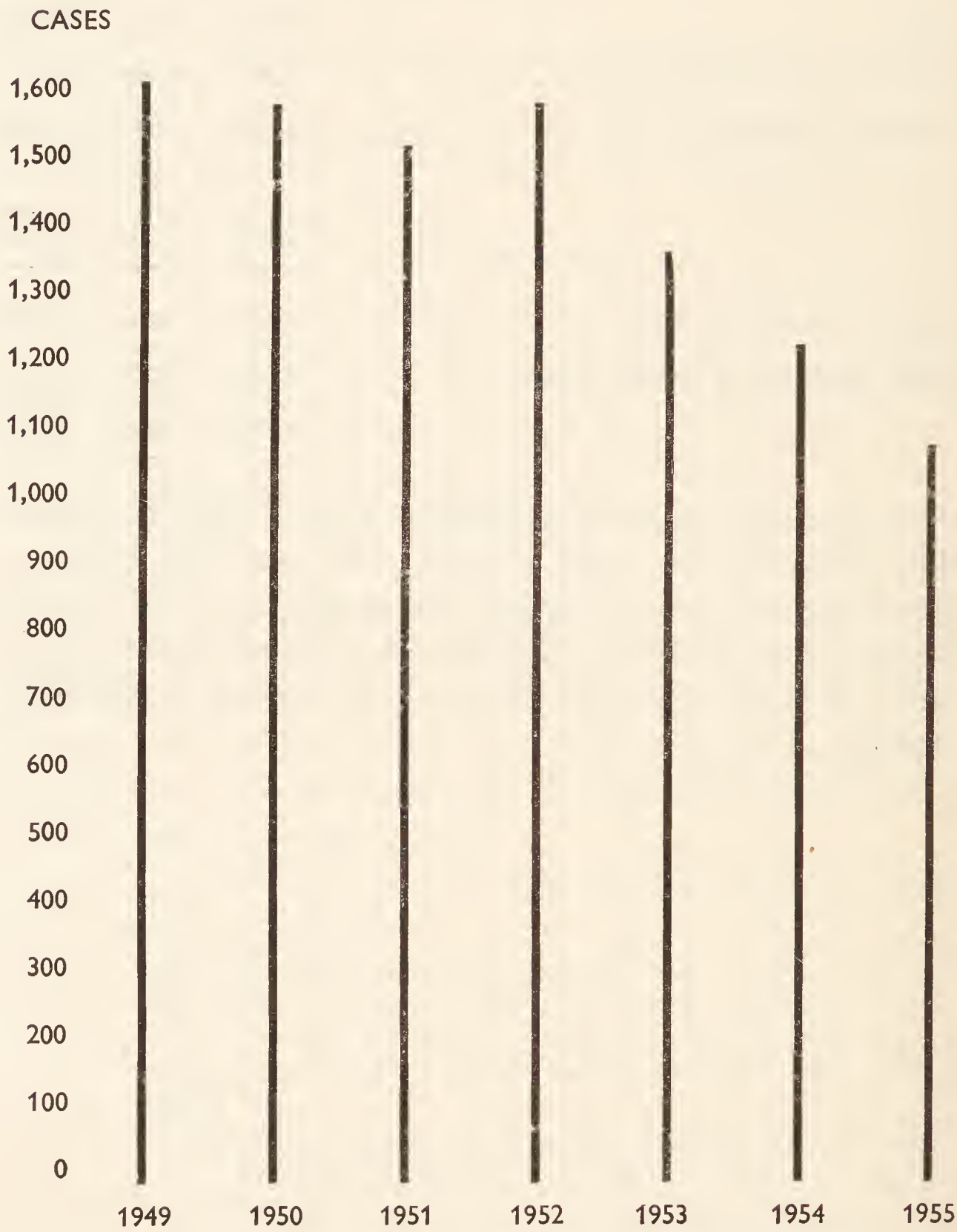
TUBERCULOSIS

Incidence of Tuberculosis.

Notification of Tuberculosis

The decline in the annual number of new notifications of respiratory tuberculosis which has been apparent since 1952 has continued. During 1955, 1,082 new cases were notified, compared with 1,135 in 1954. The following graph shows the way in which this figure compares with those for the preceding 6 years.

CHART SHOWING CASES OF RESPIRATORY TUBERCULOSIS DURING THE YEARS 1949 TO 1955



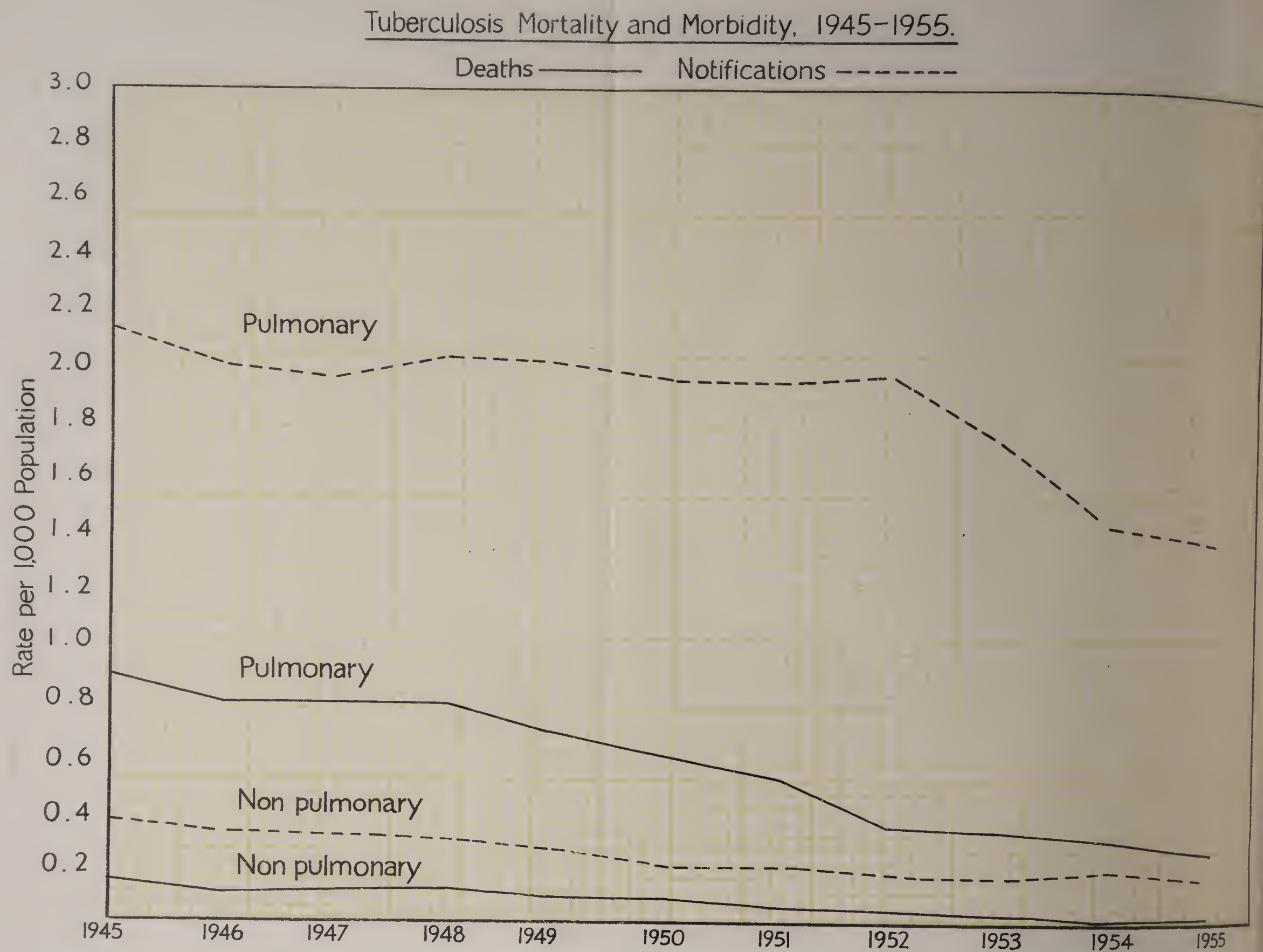

Tuberculosis Mortality and Morbidity, 1945-1955.
Deaths
Notifications
Rate per 1,000 Population
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
Pulmonary
Pulmonary
Non pulmonary
Non pulmonary
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955

Table 23 in the statistical appendix gives a detailed analysis of the age groups and sex of the new cases notified during the year.

Deaths from Tuberculosis.

Death Rate from Tuberculosis

During 1955 there were 185 deaths from respiratory tuberculosis within the City. Tables 25 and 26 show details of the deaths during the past 10 years from respiratory and non-respiratory tuberculosis respectively. It will be seen from the death rate figures of 0·24 for respiratory and 0·02 for non-respiratory disease continue the downward trend in an encouraging manner. Table 24 gives details of the age periods of deaths from all forms of tuberculosis during the year.

The manner in which notifications of, and deaths from, tuberculosis have varied during the past 10 years is shown graphically in the accompanying chart.

The fall in the number of deaths has been more rapid than the fall in the number of new notifications. This discrepancy is basically due to the greatly improved methods of treatment which have substantially reduced the death rate and the much better facilities for diagnosis of early cases, which have tended to keep up the number of notifications.

A comparison is drawn in the accompanying chart between the Liverpool death rate from respiratory tuberculosis and those of other large cities in the United Kingdom.

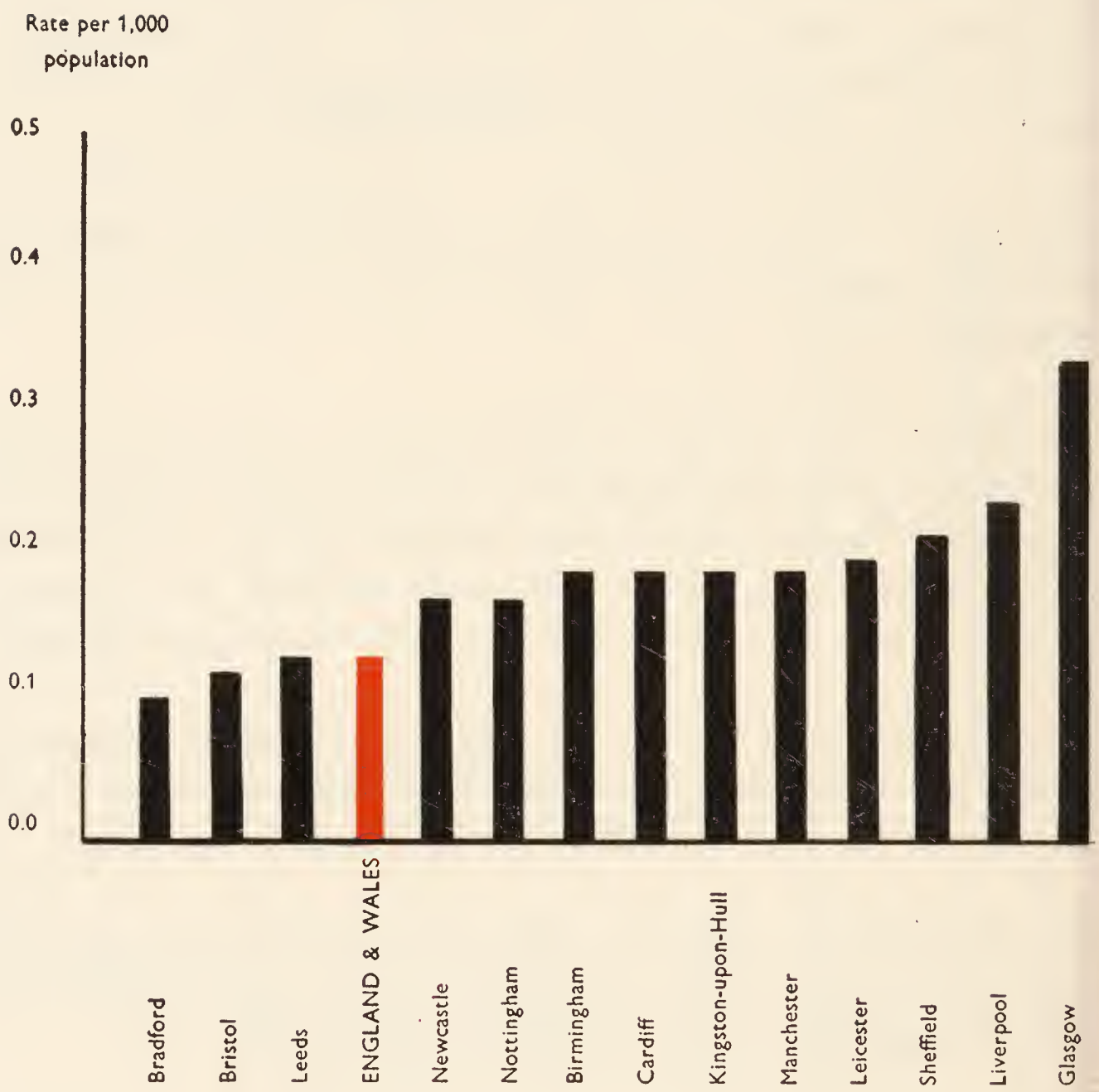
This shows that the mortality in Liverpool is higher than in any City except Glasgow and, in spite of the improvements noted, emphasises the extent of the problem in the City.

Prevention of Tuberculosis.

Tuberculosis After-Care

During the year the schemes for improving the preventive work in this field, outlined in last year's report, have matured. An additional assistant medical officer of health has been appointed whose duties are concerned mainly with the tuberculosis prevention and after-care services. Four additional tuberculosis visitors were appointed and took up their duties during 1955, and the appointment of a further four

CHART SHOWING MORTALITY RATE FOR RESPIRATORY TUBERCULOSIS FOR A NUMBER OF THE LARGER AUTHORITIES FOR THE YEAR 1955



was approved at the end of the year. This means that each tuberculosis visitor has approximately 510 cases to look after, a figure which is comparable with most other large authorities.

It is now possible to ensure that visits are made at regular intervals to all cases on the register. So that visiting lists may be accurately compiled with the minimum waste of the visitors' time, a modern statistical system has been introduced and is maintained at the public health department. A list of cases to be visited during the week is given to each visitor on each Monday morning and the visits are made in the way which is most economical of time. Active cases are visited at least once in two months, and quiescent cases once in six months. Record cards of cases admitted to hospital are removed from the general file and placed in a special one. When the patient is discharged, the card is returned to the general file and a special visit is paid to him.

Such routine visiting is of first importance for many reasons but principally because it helps to lessen the spread of infection by keeping patients constantly reminded of their obligations towards others, by ensuring that those cases who relapse receive early attention, and by providing advice and assistance in the many problems which may arise in the lives of tuberculous patients.

As well as their outside duties, the tuberculosis visitors are continuing to attend sessions at the chest clinics in the capacity of clinic nurse. On average, each visitor attends two such clinics per week. This is most helpful in maintaining a working contact with the chest physicians and clinic staffs, as well as enabling the visitors to meet their own cases at the clinic.

A separate card index system is being kept which gives details of all new notifications received from 1st January, 1956. By means of this, reliable statistical evidence will be available at all times so that a comprehensive picture of the tuberculosis problem throughout the City can be built up and effective action taken in those areas where it is most necessary.

Tuberculosis and Housing.

Housing of Tuberculosis Patients

This has again proved a rather difficult problem. As much assistance as possible has been given to those cases who are likely to benefit from rehousing, and especially where there is a serious danger of an infectious

patient spreading the disease to children and other members of his family or other occupants of the same house. To this end, an allocation of up to five housing points has been made and added to the basic points of housing applicants. In most cases this has brought the applicant into the allocation group. The applications of all tuberculous patients are supported by reports made out by a tuberculosis visitor and a sanitary inspector, and all are assessed by the assistant medical officer of health in charge of tuberculosis. Those which are considered to be most urgent are visited by him and if they merit such action, are submitted at the next meeting of the Allocation (Special) Sub-Committee, if they are not in the allocation group. If they are within the allocation group they are recommended for special priority within that group. The cases which are approved by the Sub-Committee are usually offered a house within a month, and cases in the allocation group are dealt with as rapidly as circumstances permit. During the year a total of 109 have been helped in this way—an average of nine recommendations per month. Recommendations for transfer to more suitable accommodation, in cases where patients are already Corporation tenants, are also made when circumstances justify them. The most important factor in these cases is overcrowding.

As more and more cases have been moved in this way, a new problem has arisen, namely, the possible danger of rehousing too many cases of tuberculosis in the new housing estates. On one such estate, the percentage of tuberculosis cases to total population is as high as 2·43 per cent and in the others it varies between 2·41 per cent and 1·66 per cent. Obviously there might be some possibility of setting up new foci of infection, but there is no indication that this has occurred, for the rates of incidence of new cases from these areas is not unduly high. The greatly improved living conditions in these new houses have undoubtedly counteracted this danger. It is here that the efforts of the tuberculosis visitors are likely to be most fruitful by helping patients to maintain their standards of personal hygiene and so minimising the risk. The housing department has assisted by spreading over as wide a field as possible the allocation of houses. There remain, of course, some cases who, either from disinclination or genuine necessity, refuse to accept houses offered to them on the outskirts of the City. Often such cases have been rehoused in tenement flats.

Garden Shelters.

Garden Shelters

A shelter was provided for one patient willing to have one and fit to benefit from such provision. Although the sum of £1,000 was provided for this purpose, it was found that only very rarely was shelter provision possible either on account of unsuitability of the district in which the patient lived or because of unsuitability of the medical condition of the patient.

B.C.G. Vaccination.

B.C.G. Vaccination

The scheme for the vaccination of school children between their 13th and 14th birthday has been continued during 1955 by the school health department. A total of 10,580 children were offered the facilities of the scheme, and of these the parents of 7,806 accepted. This represents 73·8 per cent, a reduction compared with the 81 per cent acceptances during 1954.

All 7,806 acceptors were patch tested, the jelly being applied by a nurse and the result read by a medical officer. 1,778 children were obviously Mantoux positive on the patch test and the remainder (the negative and doubtful patch tests) were Mantoux tested. In all, 6,028 were given a Mantoux test and of these, 394 were found to be positive. Thus, a total of 2,172 children reacted positively to the skin tests. All the negative reactors were vaccinated with B.C.G.

The figure shows that 27·9 per cent of the children of Liverpool have been infected by the tubercle bacillus before they leave school. This is considerably lower than the 34 per cent figure reported last year. It probably reflects improvement, but it may well have been that last year's figure was unduly high.

B.C.G. vaccination has also been continued at all the chest clinics. It has been offered to all suitable cases of tuberculosis contacts and given as a routine to all the new born babies of known tuberculous parents. A total of 1,735 B.C.G. vaccinations were given during the year at the four clinics.

Towards the end of the year, arrangements were made to start a scheme for offering B.C.G. vaccination to the new born babies of normal parents at one of the maternity hospital units.

Work of the Chest Clinics.

A statistical summary of the work of the tuberculosis clinics so far as all cases on the dispensary registers are concerned is given in Table —.

Dr. Crawley, South Chest and Central Tuberculosis Clinic.

Reports of Chest Physicians

For the first time, this year has shown a slight reduction in the number of tuberculous patients, from 2,721 to 2,684 on the register of the South clinic, but the clinic is still working to capacity without any alteration in the figure of over 13,000 attendances.

The Central clinic area has been enlarged to take over an adjacent area formerly attached to the North Chest clinic, and this year's record of activities cannot be statistically compared with last year. In both clinics there is, however, evidence that the battle against tuberculosis is progressing favourably and new cases of pulmonary tuberculosis diminished from 310 to 260 in the South area, and from 310 to 218 in the Central area. The decline in non-pulmonary tuberculosis was even more noticeable, but notifications of this form of disease are not sufficiently accurate for statistical comment.

The home care of patients is an increasingly important aspect of the work supervised by the clinic. Tuberculosis is now being discovered at an earlier stage in which it is possible in a greater proportion of cases to justify treatment in the patient's own home under supervision of the clinic doctors and health visitors, in co-operation with the patient's family doctor. Such domiciliary treatment is possible in a greater proportion of the South area patients with their better average standard of housing conditions.

The visitors' duties are supervised and co-ordinated by the Medical Officer of Health, and with the additional appointment of one visitor to each clinic area, the supervision of the whole family of the tuberculous patients is more adequately covered. Much satisfaction is obtained from the records of attendances of contacts of tuberculous patients, and for each new patient discovered, an increasing number of contacts is being examined. In both areas the figure is now almost 4. Of these contacts, just over 1,000 have been found suitable for vaccination with B.C.G. as a preventive health measure. These bare figures of work among the family circle reflect great credit on the persuasive efforts of the tuberculosis visitors.

Dr. Osborne Hughes, East Chest Clinic.

Although the total number of patients on the register continues to increase, it is satisfactory to note that there has been a substantial decrease in the number of new cases diagnosed; compared with 1954, the year 1955 shows a decrease of 25 per cent. Deaths were also reduced by a little over a third. We continue to receive more patients from other areas than are transferred out, and these last two factors outweigh the first.

The advent of a third tuberculosis visitor has lightened the work of the two already working in the area, and with the appointment of a fourth, the number of households under the care of each visitor will approach a figure considered suitable for efficient working. With the continued spread of the City, however, more of the visitors' time has to be spent in travelling to and from their areas and on economic grounds alone, the provision of transport would be justified and would result in more of the visitors' time being made available for their proper work.

The number of B.C.G. vaccinations has for the first time reached over 500. The vast majority of parents are only too willing for their children to be protected against tuberculosis.

The regular visits of the assistant medical officer of health to discuss various problems are proving very valuable, and the institution of the new visiting list should further improve the efficiency of the preventive and after-care work.

There is still some difficulty in placing in employment, when they are fit, men whose age is over forty years. There is room for propaganda work amongst some employers and trade unions, who appear to regard the disease much as leprosy was regarded in the middle ages.

Dr. Gray, North Chest Clinic.

During the past year I have been pleased to note the increase in the visiting staff, as I am sure the preventive side can only be worked if each visitor carries a load of about 500 patients.

This has been a year of transition at the North Chest Clinic as in October, 1955, we moved from the ancient premises at Netherfield Road

to our much more up-to-date and comfortable clinic at Aintree Hospital. Many patients have expressed appreciation of the comfort and service at this new centre. The geographical area served by the clinic has been changed in order that we may take over the Kirkby estate which, of course, comes under the Lancashire County Council. We have, therefore, given up part of the Scotland Road area to the Central Clinic and figures for work done here can, therefore, not very well be compared with last year's figures.

The tuberculosis visitors have been kept very busy during the year submitting details about housing so that those cases with the greatest need shall be given some priority.

The practical abolition of the waiting list for admission to the hospitals has been a feature of 1955, and it has meant that fewer visits to the homes of the patients are having to be paid by the medical staff.

Since we came to our new clinic, it has been possible to arrange for patients who are working, to attend at a monthly session held in the evening and to be seen by me, and the X-ray at Aintree Hospital has co-operated in X-raying them then and there on the same evening. This means that the patient does not have to take time off work at all in order to have his follow-up examination and X-ray.

We are continuing to vaccinate as many tuberculin negative children as possible where the parents give consent. Unfortunately, some parents are still refusing to give this, and perhaps a little more propaganda about the use of B.C.G. would be helpful.

Mass Radiography.

Mass Radiography

The static mass radiography unit at Hood Street, Liverpool is administered by the Liverpool Regional Hospital Board and deals mainly with persons within the City boundary. Persons referred to this unit are derived from three main sources:—

(*a*) From firms in the City and adjacent areas;

(*b*) National Service Recruits;

(*c*) Cases referred by General Practitioners.

Out of a total of 51,836 examinations made during 1955, 29,515 were referred by general practitioners, mainly within the City. The number of National Service recruits examined was 12,730 and 9,591 persons were referred from firms chiefly in the City and adjacent areas.

The mobile units of the Regional Hospital Board continue to co-operate to the full with the Medical Officer of Health's department by arranging visits to schools and other establishments whenever a case of tuberculosis has been discovered, with a view to the detection of contact cases. Routine examinations of secondary schools are also carried out.

As in former years, all prospective employees in the City Nursing Staffs are X-rayed by the static unit at Hood Street before their engagement, and members of the City Engineer and Surveyor's staff who have been exposed, by reason of their occupation, to industrial respiratory infection such as silicosis, are referred to this unit for X-ray. Candidates for employment as school teachers are automatically referred before appointment, and the same procedure applies in the case of recruits for the Liverpool City Police.

Tuberculosis Welfare.

During the year 1955, 696 cases have been the subject of reports to the National Assistance Board with a view to determining their eligibility for the special rates applicable to cases of tuberculosis.

Liaison is maintained with the Ministry of Labour with a view to assisting in the rehabilitation of suitable cases.

Rehabilitation.

Rehabilitation

Summary of cases dealt with during the year 1955:—

Total cases referred by Ministry of Labour to Tuberculosis Officers ...	557
(*a*) Examined and found fit for light, part-time or full-time employment	534
(*b*) Not fit for employment	16
(*c*) Failed to attend for examination	4
(*d*) Certified as non-tuberculous	3
Letters sent by Tuberculosis Welfare Section to patients offering advice and assistance to obtain suitable employment	93
Number availing themselves of this assistance and referred to Ministry of Labour	59
Actual number of patients reported by Ministry of Labour as placed in employment	114
Total number of cases dealt with under Rehabilitation Scheme by Tuberculosis Welfare Section	650

The Ministry of Labour has now instituted a review survey of persons in receipt of allowances, in the form of a stencil requesting confirmation

that the person is still receiving treatment under the supervision of the Chest Physician concerned. This system has now been in operation for over a year, and the number averages about 10/15 per week.

In addition to those shown above, eight patients are undergoing rehabilitation at the Tuberculosis Colony, Great Barrow, Chester. The first of these became a colonist in January 1951, and the last two in December 1955. All are making very good progress.

Notification and Deaths.

During the year, 8 persons within the City died from tuberculosis, 7 respiratory and 1 non-respiratory, without notification having been effected prior to death. These figures represent 3·8 per cent of the total respiratory and 5 per cent of the total non-respiratory deaths. The result of enquiry into the reasons for such failure to notify are summarised in Table 28.

The contacts of such persons were called in for examination in the usual way.

It is pleasing to note that the number of deaths of non-notified cases of respiratory tuberculosis continues to fall.

VENEREAL DISEASES—AFTER CARE AND WELFARE.

Although the treatment of venereal disease is the responsibility of the Liverpool Regional Hospital Board and the Board of Governors of the United Liverpool Hospitals, the after-care and welfare work associated with these diseases is carried out by the local health authority.

The staff employed to undertake this work include a senior male welfare visitor and a female welfare visitor. In addition, the services of the welfare visitor attached to the Royal Infirmary V.D. Clinic are available to deal with female defaulters from that clinic.

The work has continued to be the interviewing of patients, the tracing of contacts, and persuading them to attend for examination, writing and visiting defaulters from treatment and assisting patients to attend in the light of the knowledge of the circumstances of the individual patient. Close co-operation with the medical officers of the various treatment centres has been maintained, and patients referred to clinics by hospitals for investigation or treatment having failed to report, have been followed-up, in most cases, successfully.

Acute Gonorrhoea

	1938	1946	1953	1954	1955
Males	1,422	3,112	710	816	862
Females	141	422	128	148	287

Early Syphilis

	1938	1946	1953	1954	1955
Males	147	655	65	38	62
Females	34	331	13	6	15

Contact Tracing.

Contact Tracing

During the year there was a marked rise in the number of contact notifications received, although some of the contacts were named on several occasions. No males were notified.

Of the total of 212 contacts notified, 200 were received from U.S.A.F. Bases in this country. In ten instances of the balance of twelve, a reasonable degree of information was given which, largely, resulted in nine being traced, of whom eight reported at clinic for investigation. It is normal practice to offer help to contacts in their own and the public interest, and a recent example demonstrated the value of this policy. A girl contact aged twenty-one, notified by no fewer than eight individuals, was traced and brought under treatment. She had, meantime, appeared in court for a brothel offence, being sentenced to three months' imprisonment; this was reduced to a period of probation. With the assistance of her Probation Officer, she was persuaded to make an effort to change her mode of life. It is satisfactory to report that for the past three months she has been usefully employed in a residential post, which she obtained unaided. In this instance, contact tracing not only lead to her cure but to her general rehabilitation.

The default rate among traced contacts has been higher than among patients generally, but all cases had received, before default, sufficient treatment to render their condition non-communicable.

Patient Defaulters.

Patient Defaulters

Despite advice given early in attendance, the default rate remains rather high.

In the case of congenital cases, chronic default has been reduced greatly by ensuring that all means are used to trace these children. The maternity and child welfare services, the school health service, and school welfare service, together with the children's department.

During the year, a boy aged seven years, suffering from congenital syphilis, who had not reported for five years, was successfully traced in this way. A total of 2,523 home visits were paid during the year to defaulting patients.

Cases referred by Ante-Natal Clinics.

Cases Referred by Ante-Natal Clinics

During the year, 34 patients were referred from ante-natal clinics for further investigation. See Table 32. In 11 instances routine blood testing had revealed syphilitic infection. These included one early case, and ten latent cases, of which four only had received any previous treatment. In all instances immediate treatment was arranged and undoubtedly prevented congenital infections in the children born later.

Five cases of acute gonorrhea were referred, and 18 conditions later shown to be not venereal.

General After Care.

General After Care

As well as contact tracing, much useful sound after-care has been possible. An outstanding case in this field this year included the family of a patient, for on diagnosis of the husband, it seemed the family would break up altogether, as the wife left her husband and children. However, with the help of the Children's Department, who looked after the children temporarily, the wife was traced and persuaded to view the matter more realistically, and the family reunited.

MENTAL HEALTH SERVICE.

Services Provided

The Mental Health section has continued to provide the following types of service to the community:—

(*a*) Initial visiting and care of people reported as mentally ill.

(*b*) Legal and other procedure in connection with admissions to mental and mental deficiency hospitals.

(*c*) Ascertainment, supervision and training of mental defectives.

(*d*) Pre-care and after-care facilities.

In view of the continued shortage of institutional accommodation for mental defectives it seems necessary to state, once again, that though the section supervises these people in the community it has no power to provide institutional care but must ask the Regional Hospital Boards for beds. Dissatisfaction over the provision made by the Boards reached a climax towards the end of the year when several joint meetings were held and it was agreed on both sides that a state of emergency existed. The subject is discussed in detail later in this report.

Administration

Committee arrangements have been as in previous years and again the only staff changes have been at Occupation Centres, which have received more children than ever before. Additional visiting officers were appointed in November and are due to commence duty early in 1956.

At 31st December the following was the staff employed:—

Medical—Senior Medical Officer (Mental Health).

Administrative and clerical—1 senior administrative assistant, 1 senior authorised officer, 1 administrative assistant, 8 clerks and typists.

Visiting—9 duly authorised officers, 6 female visitors, 1 removals assistant.

Occupation Centres—3 Supervisors, 1 supervisor of senior male class, 12 assistant supervisors, 5 trainees, 10 domestic staff.

Prevention, Care and After-Care.

Persons referred for after-care in 1955	745
Visits and interviews	4,103
Persons under active supervision at 31.12.55	1,260

Increase in After-Care Work

The average number of people receiving visits is now 500 more than it was five years ago and, despite the large amount of visiting, it became evident during the year that officers were still not able to devote enough time to difficult after-care cases. The ultimate need for additional staff had been foreseen in the original establishment and during the year, the Committee authorised the filling of four vacant visiting posts.

When these new appointments have been made there will be 18 officers concerned in after-care work, each dealing with from 60 to 80 patients (and also responsible for mental deficiency supervision).

The general principles of after-care were discussed in considerable detail in last year's report and the conclusions then reached remain valid—that the benefit derived by patients can rarely be exactly measured and will not always result in keeping them out of hospital but that community care is nevertheless an important part of the national health service which will have to be developed further.

Preventive Clinic

It is possible that the shape of things to come can be seen in one development which has already taken place—the initiation of a clinic at a maternity and child welfare centre at which officers of the mental health service and health visitors can discuss selected cases with a child psychiatrist. It is too early to attempt to assess the usefulness of this scheme which may be described as a first effort to grapple at an early stage with the problem of preventing mental ill-health in Liverpool.

Employment

The appointment of a full-time employment officer has continued to be justified. He performs his duties in close co-operation with officers of the Ministry of Labour and Youth Employment Bureau and has established excellent relations with a number of employers who have shown great interest in and patience with people he has sent to them.

The proportion of unemployed people to the general population is higher in Liverpool than most areas (three times as high, for example, as in Manchester) and it is felt that the allocation of a special officer to help those who are mentally handicapped or who have been mentally ill is an effective part of the care and after-care service. There is no doubt that, through his intervention, patients have been placed who would otherwise have been classed as unemployable.

At 31st December there were 267 patients on the "live" register (132 after-care, 135 defectives). Seventy posts were found during the year as follows:—

Labourers, etc.	23	Lift attendants	3
Porters	5	Painters	2
Packers and Assemblers, etc.	11	Machine operators	2
Domestics	8	Farm workers	2

and one each of clerk, typist, groundsman's assistant, glass polisher, nurse, smocker, street cleaner, rubber moulder, scaler, shoemaker's assistant, tin greaser, van washer, aero engine fitter, shop assistant.

The question of the employment capabilities of mental defectives has received some publicity in medical and technical journals during the year and reference is made to this on pages 70-71.

Duties under Lunacy and Mental Treatment Acts.

Patients Referred

1,340 cases were referred to the Mental Health Service for investigation, the largest number in any one year since the inception of the service. The references came from the following sources:—

General Practitioners	665
Psychiatrists	94
Hospitals	286
Police	135
Relatives	74
Other Corporation departments	19
Shipping firms	26
From pre-or after-care list	11
Other sources	30

Action Taken

The following were the actions taken in these cases:—

Admitted to Hospital (Section 20 Lunacy Act)	775
Admitted to Hospital as voluntary patients	8
Admitted to Hospital as temporary patients	3
Admitted to Hospital (Magistrates Courts Act)	6
Admitted to Hospital other than mental hospital	19
Referred to J.P. (Section 14 Lunacy Act)	116
Referred to Psychiatric clinic	56
Referred to Welfare Services Section	64
Referred to Military authority	1
Referred for pre-or after-care	56
Referred back to patients' doctor	56
Action deferred	2
No further action needed	178
	1,340

As regards patients brought before the magistrates at summary reception order proceedings, 337 orders were made in respect of patients already in hospital and 59 for patients at home. In 169 cases no order was made.

Among the notified cases were 132 people over the age of 70 (46 men, 86 women). It was found necessary to admit 44 (33 per cent) of these under Section 20. In the case of patients under the age of 70 the proportion of Section 20 admissions was considerably higher—60 per cent.

Officers make every effort to find means of dealing with old people who may be confused in mind, other than by way of the Lunacy Act.

Hospital Admissions

Admissions to mental hospitals during the year were:—

Hospital.	Patients certified under Section 16 Lunacy Act.	Voluntary Patients.	Temporary Patients.
Sefton	20	200*	—
Rainhill	360	328	4
Winwick	19	31	—
Deva	11	6	—
Ormskirk	—	1	—
Whiston	1	—	—
Hospitals outside Liverpool R.H.B. area	4	—	—
Total	415	566	4

* Admitted Section 20 and later re-classified as voluntary.

Accommodation

Previous reports have mentioned the difficulties met from time to time in obtaining admission of urgent cases because of shortage of beds in mental hospitals. The year has not been entirely free from these difficulties but the position has been eased by the operation of a scheme agreed after meetings with the Regional Hospital Board last year. The principle has been accepted that the larger mental hospitals have the obligation to accept certified cases, that all Section 20 cases should be admitted to Sefton Hospital and that normally Liverpool cases should be transferred from Sefton to Rainhill Hospital on certification.

Night Duty

It is, of course, necessary to provide a 24-hour service for attention to urgent cases of mental illness and many calls are received during the night hours. Each duly authorised officer in turn stands by in his own home for a weekly period and visits all cases referred out of office hours. Calls average about 15 per week.

Hitherto the officer has performed this duty in addition to his day duty but towards the end of the year it was agreed that during his week

of night duty he should not be required to attend during the day. At the age of 60, moreover, officers have been given the option of ceasing to perform night work altogether.

A memorandum of evidence was forwarded to the Royal Commission on the law relating to mental illness and mental deficiency and representatives appeared before the Commission on 30th March.

Evidence Before Royal Commission

The memorandum concentrated chiefly on the arrangements for admission of urgent cases to mental hospital and for continuing hospital treatment in those cases where the patient's stay is not voluntary. In the light of evidence put forward by other bodies it would seem that Liverpool's viewpoint on these subjects may be a minority one but it is based on practical experience of the difficulties in this City.

Emphasis was placed on the safeguarding of the liberty of the subject. It was strongly urged that though everything possible should be done to bring hospital arrangements for mentally ill people into line with those for the physically ill, the patient's rights of liberty must at the same time continue to be fully protected.

It was felt that the patient's best safeguard lay in the judicial process and that the justice of the peace should continue to be associated with that process; in other words that his judicial approach should not be superseded by purely medical considerations.

Special attention was also paid to the arrangements for admitting urgent cases whose condition constitutes an immediate danger to themselves or others. Here it was considered that the present Section 20 has worked well and that the duly authorised officer's power to arrange admission for the limited period of 3 days, pending medical consideration of the case, should not be abrogated.

Duties under the Mental Deficiency Acts.

Ascertainment

163 new cases were ascertained as mentally defective during the year. Seven others were, after investigation, not considered subject to be dealt with under the Mental Deficiency Acts and of these, two accepted voluntary supervision.

The sources of notification of those ascertained were as follows:—

Education Act Section 57 (3) or (4) (ineducable or inexpedient)	73
Education Act Section 57 (5) (supervision after leaving school)	71
Other sources (doctors, parents, children's officer, etc.)	19

140 were placed under statutory supervision and 22 recommended for institutional care. Of these latter, 7 were admitted to mental deficiency hospitals. One child was placed under guardianship.

A good deal of misunderstanding still seems to exist about ascertainment among parents and others. The department's explanatory brochure, now sent to the parents of every new case, has helped to clear up some of this but not all. Intelligence tests, in particular, seem to be a popular target for criticism but it is emphasised that they are only one of the factors on which the final assessment of mental defect is based.

Great care is taken by the school medical officers before children are referred as ineducable and only rarely is the power, given by statute to refer back an ascertained child, applicable. One such case occurred during the year—a boy of 8 showed such improvement at an occupation centre that he was referred back to the Education department and was accepted for education in a special school.

At 31st December, 1955, 1,726 defectives were under supervision, as follows:— **Supervision**

	Males.		Females.	
	Over 16.	Under 16.	Over 16.	Under 16.
Statutory Supervision	595	241	575	166
Guardianship	19	5	46	19
Voluntary Supervision	32	—	28	—
Totals ...	646	246	649	185

5,650 home visits were paid including 427 visits on behalf of mental deficiency hospitals.

Cessation of visits was approved in 32 cases, including 17 who had maintained employment over substantial periods and 13 who had married.

In theory, supervision would be most valuable after marriage when added responsibilities might be expected to throw a greater strain on the defective person's resources, but in practice it is often impossible or unwise to continue.

The problem of mental deficiency is sometimes presented to the public as if it almost solely concerned children, but it must be remembered that there is, of course, a great preponderance of adults among those under supervision—1,295 over the age of 16 and 431 under 16.

Guardianship

Of the 73 cases under guardianship at 31st December, 1955, 11 were receiving allowances. The total cost of allowances for the year was £282 5s. 4d. All defectives over the age of 16 who cannot work are entitled to a national assistance allowance.

Training

The training of defectives in the three occupation centres administered by the department has proceeded along the usual lines. There are now 320 on the rolls as compared with 105 in 1950 and 215, 243, 274 and 305 in the succeeding years.

There is a waiting list of 40.

It is regretted that it has not been possible to find a building suitable for a senior centre for boys and men. A great number of premises have been inspected but the few which might have been suitable have all had extensive dry rot. The need for such a centre has now become urgent.

The classes in laundry work and domestic science started last year have become a feature of the training of older girls and the handicraft work continues to be of good quality, to judge by the sales readily made to parents and others. Parties from two centres are attending swimming baths and several defectives have been taught to swim.

The annual sports were cancelled after two postponements owing to rain, a great disappointment to children and parents who equally look forward to this event.

Training of Imbeciles

As mentioned earlier, those engaged in training defectives have been interested by the publication of the results of an investigation by Clarke and Hermelin which showed that imbeciles may have higher potentialities than has hitherto been realised by most people. Six adult

imbeciles were studied over 2½ years and it was found that with painstaking experiment they could do tasks which might have been considered as outside their capacity taken at its "face value". Research was carried on in the department during the year with somewhat similar objectives in mind. The results of giving incentives and rewards to groups of adult male defectives at an occupation centre were studied and it was found that appreciably higher performance levels were reached by these groups than by a group which was given no incentive.

These experiments are far from suggesting that we have here a ready-made source of labour. At the best, employment would need to be sheltered with special rates of pay and long periods of training. Whether, even with increasing demands for labour, defectives of this grade can be embodied in the industrial structure is, of course, highly doubtful but it seems worth while making every effort to give them more interest in life. For this reason if no other, the opening of a senior centre seems desirable.

Institutional Care

The subject of institutional care, more than any other, has caused difficulty during the year. For a number of years this report has mentioned the seriousness of the shortage of beds in mental deficiency hospitals as measured in terms of family unhappiness, as well as the needs of the defectives themselves. The impact of the statements made may have become dulled by reiteration but the problem is as serious as ever. It is, in fact, a subject on which the local authority and the Regional Hospital Board have important differences of opinion, the Board contending that everything possible has been done and the local authority pointing out the growing waiting list, the long periods that urgent and distressing cases have been on it and, in particular, the failure to provide places for low-grade boys.

Several meetings have been held with representatives of the Board and it has now been agreed on both sides that a state of emergency exists. The Board's proposed measures to meet this emergency have not been accepted by the local authority as sufficient and at the end of the year it had been decided to ask the Minister of Health to receive a deputation on the subject.

In the last five years the waiting list has, instead of diminishing, grown from 85 to 124, the most urgent cases on it rising from 62 to 81.

In the tables on page 74 the waiting list has been broken down into groups showing age and sex, time on list and type of care. It will be seen that 34 cases of the highest urgency have been on the list over 3 years and another 29 over 1 year. Well over half of them are ambulant low-grade or cot and chair cases. For the last five years the number of new cases added to the list has exceeded the total vacancies given.

The gloom of this story may be illustrated once again by a few cases, which have not been quoted in previous reports:—

A. A boy aged 10, has been on the list for 3½ years. During this time he has steadily deteriorated and has had to be excluded from an occupation centre as a danger to the other children. He spends all day in slapping himself violently on the face and in butting his head against the walls of his home.

B. A woman aged 26, has frequent epileptic fits. She is irritable and violent and is in grave moral danger in that she is left alone all day without supervision while her sister, the only other occupant of the home, is at work.

C. A boy aged 11, is doubly incontinent with filthy habits. There are 5 other children in the family including a new baby. The home is very poor and the parents, though they do their best, are unable to give proper care. This boy has been on the list for nearly 6 years.

Short-Term Care

A certain amount of relief has been provided for the parents of some of the defectives on the institutional care waiting list by their admission for short periods to either voluntary homes or to Regional Board hospitals. Such admissions are not confined to those on the waiting list and, indeed, it is an admirable thing that parents who are willing to keep a defective child at home should have some relief.

This form of care was originally intended to be given during periods of "temporary and urgent need", e.g., during the illness of the mother. A liberal interpretation has been placed on the phrase to include, for example, admissions to enable a family to have a holiday.

The following figures show how this service is growing :—

Admissions to Voluntary Homes.	1953	1954	1955
No. of defectives	22	17	52
Total weeks stay	36	45	118
Gross cost to Corporation	£172	£308	£805
Contribution by parents	£21	£27	£81

Admissions to Regional Board hospitals.	1954	1955
No of defectives	34	47
Total weeks stay	117	180

Conclusion

This report may fittingly conclude with a word in favour of the mental health service as at present constituted. Despite coming into being during a period of restrictions and controls it has developed well along humane lines and is a most useful part of the National Health Service. A very large proportion of the difficulties encountered has been due to shortage of hospital accommodation and if this could be made good it is felt that much of the present criticism of the mental deficiency services would disappear.

The year closed on a note of anticipation, the report of the Royal Commission being awaited with great interest.

Mental Defectives.

Waiting list for institutional care.

Waiting list at 31.12.55	124, comprising :—
Urgency 3 (highest)	81
Urgency 2	23
Urgency 1	10
Urgency 0	10

These figures can be classified as follows :—

(*a*) In age and sex groups.

Urgency	Under 6		6—16		Over 16		Total
	male	female	male	female	male	female	
3	2	8	27	7	19	18	81
2	2	1	10	2	5	3	23
1	3	—	4	—	2	1	10
0	1	—	1	1	6	1	10
	8	9	42	10	32	23	124

(*b*) Time on waiting list.

Urgency	Over 3 yrs.	2—3 yrs.	1—2 yrs.	6 mths—1 yr.	Under 6 mths.	Total
3	34	13	16	6	12	81
2	8	3	4	3	5	23
1	2	2	1	2	3	10
0	7	1	—	2	—	10
	51	19	21	13	20	124

(*c*) Classification of defects.

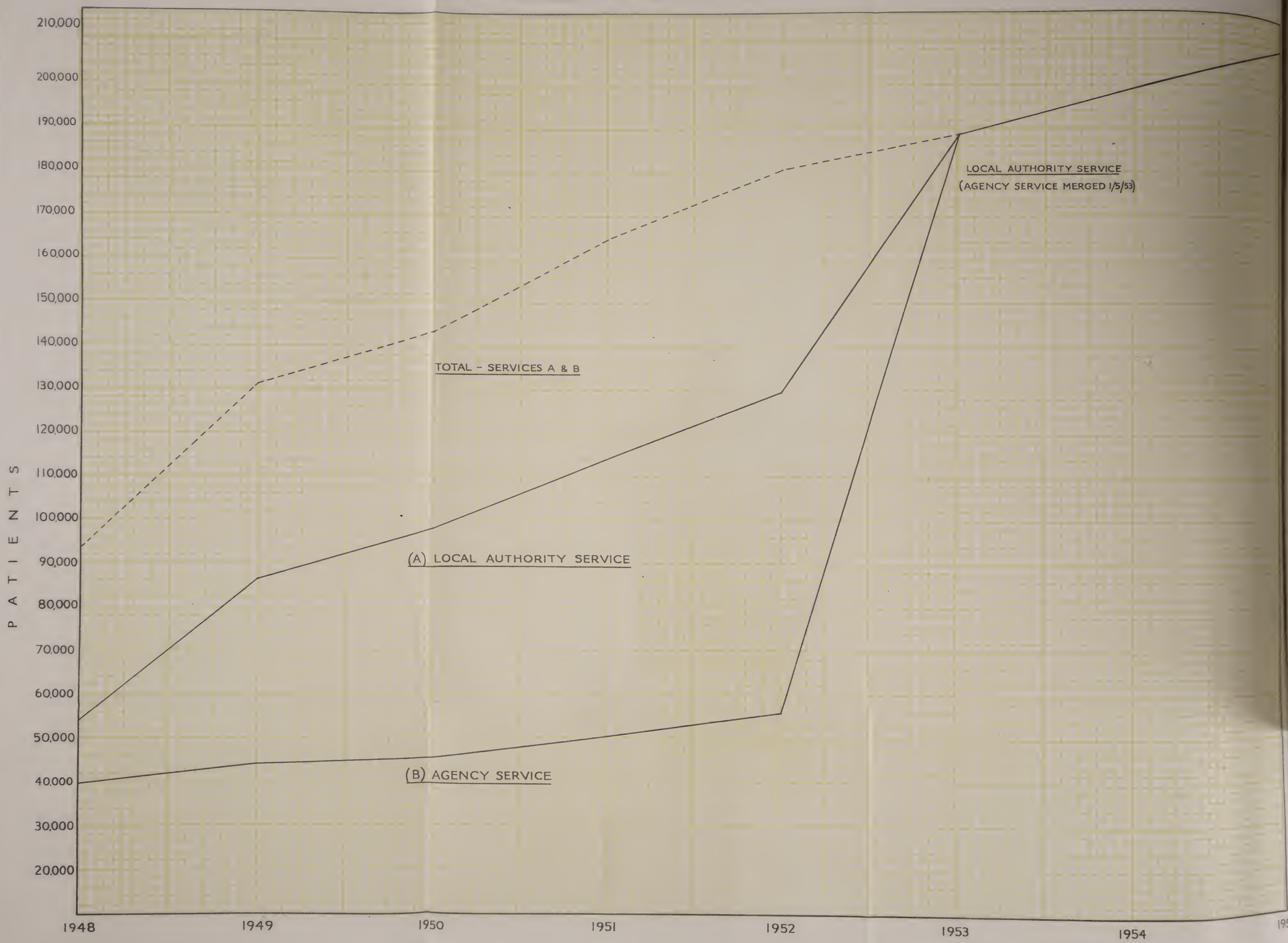
Urgency	High grade	Medium	Ambulant low	Cot & Chair	Total
3	8	27	31	15	81
2	3	12	6	2	23
1	3	6	1	—	10
0	4	4	1	1	10
	18	49	39	18	124

Note : Waiting list figures do not include the following :—

In places of safety 47
In Regional Board establishments other than certified M.D. hospitals 24

CITY OF LIVERPOOL AMBULANCE SERVICE

PATIENT REMOVALS 1948 - 1955



AMBULANCE SERVICE.

During 1955, the number of patients carried by the Ambulance Service has continued to increase. The total number of patients moved during 1955 was 211,183, an increase of 5·99 per cent, representing an additional 11,939 patients. The total increase when compared with 1948 is 125·93 per cent. The ambulance vehicles travelled 951,865 miles, using 79,237 gallons of petrol. When compared with the previous year, an increase of 64,717 miles is revealed with a decrease in petrol consumption of 155 gallons. It has been the policy to have smaller powered engines in new vehicles and this, together with the system of maintaining monthly performance records for each vehicle, an economical result has been achieved.

The average mileage per patient for the year was 4·51. This has shown a steady decrease each year from 1948 when the average mileage per patient was 8·89. The increased volume of work, the practice of collecting patients in larger numbers at one time and the use of radio telephony have no doubt been responsible for this welcome decrease.

There can be no doubt the cause of the continued increased demand is brought about by the ever-increasing number of persons receiving out-patient treatment. It is also realised that in-patients are now discharged earlier than formerly and thereafter conveyed regularly for out-patient treatment. In appreciating these facts, the transporting of the increased number of patients is proving a problem, the solution of which would appear to be further increases in staff and vehicles. This adds considerably to the cost of the service, having in mind the necessity of providing garage accommodation for the enlarged fleet. Rigid application of the recommendations contained in Circular 30/51 continue to be applied and the number of patients conveyed to distant hospitals for treatment are few.

Communications

The headquarters switchboard with six exchange lines has met the demand. There are four large hospitals, the Police Control Room and Emergency Bed Bureau connected by direct lines. The employment of one telephone switchboard operator has been found inadequate to cope with the receipt of messages and two female telephone attendants working alternate shifts of 7 a.m. to 3 p.m., and 3 p.m. to 11 p.m., have been engaged. Radio telephony has continued to be an important feature from an efficiency and economical view point. Thirty-eight ambulances are so equipped and speedy deployment has enabled the vehicles to undertake more removals.

Removals to Places Outside the City

The large number of specialist hospitals in this City providing treatment to patients from distant places, caused the ambulance service to make many long distance journeys when returning patients to their homes. Full co-operation is made in respect of using other authorities' ambulances wherever possible and train transport used in suitable cases. Many patients continue to be transported each week to the Maternity Annexe at Southport.

It is on rare occasions that it is found necessary to transport patients arriving from overseas to distant places by ambulance. Train transport has been largely used for this purpose.

Major Civilian Disasters

The equipment consisting of first aid materials, stretchers and blankets, has continued to be held in reserve for this purpose.

Infectious Patients

The transport of infectious patients has continued to be dealt with by a separate staff and vehicles. It is interesting to record that the demand upon this section is gradually decreasing, although the main work is concerned with the transport of patients suffering from tuberculosis and who are receiving regular clinic treatment.

Resources Available

The demand upon the Service has resulted in increases in vehicles and staff. The fleet now comprises 48 stretcher ambulances, 14 sitting case ambulances and 11 sitting case cars. The staff has been increased by eight and now totals 138 Driver/Attendants who perform duty on a rota system covering the various stations and providing a minimum of eight fully manned ambulances throughout the night and the balance between 7 a.m. and 11 p.m.

The vehicles are housed at Headquarters, Central Depot, Gascoyne Street Depot and four accident ambulance stations. It has become increasingly difficult to house the vehicles under cover and to this end plans are in being to provide an additional depot in the north area of the City. Further planning will result in providing small accident stations in the south and east. If the demand continues to increase, consideration will have to be given to providing more garage space. The existing headquarters building is now used to a maximum, but, if necessary, additional accommodation could be provided by covering the existing yard attached to the building.

During the year, 4 new stretcher ambulances, 4 sitting case ambulances and 7 saloon cars were purchased and 4 stretcher ambulances and 2 saloon cars disposed of.

Oxygen Therapy

All accident ambulances are equipped with Oxygen Therapy Flowmeter Outfits and two cylinders of oxygen. The old type face piece has been discarded and polythene masks are now used for each individual patient.

Liaison with Hospitals

It is still found necessary to maintain a close liaison with hospitals. There can be no doubt that cases of misuse of the Service frequently occur and every effort is made to keep such instances to a minimum. Difficulty is often experienced in requests from the Emergency Bed Bureau, many of which are prefixed "Immediate" or "Very Urgent" and when attention is given it is found that the degree of urgency is negligible.

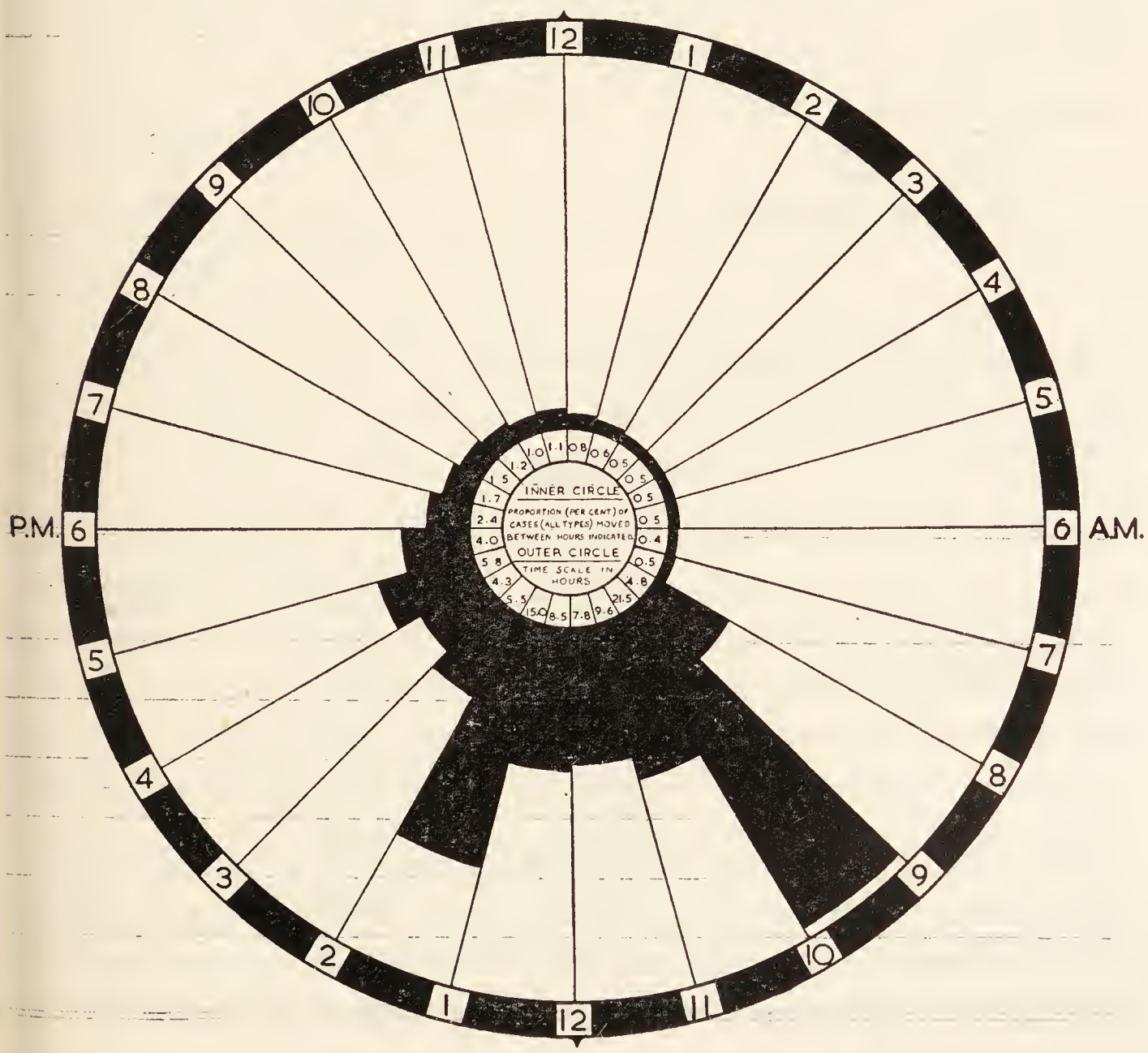
Out-Patients

The majority of the patients carried are out-patients. Very little difficulty is experienced in transporting the patients to hospital as up to twelve persons are collected at one time in districts. The variety of treatment given often means several trips to the same district for the return journey and sometimes causes a long wait for individuals.

The hourly demand on the ambulance service work is shown clearly in the following diagram.

AMBULANCE SERVICE.

DIAGRAM INDICATING PEAK PERIODS OF DEMAND ON SERVICE



STATISTICAL REPORT

	YEAR 1955	YEAR 1954
Non-infectious cases from :		
Home to Hospital	88,965	82,710
Hospital to Home	75,186	69,600
Maternity Cases	7,165	7,288
Infectious cases from :		
Home to Hospital	7,616	8,584
Mental cases from :		
Home to Hospital	535	349
Accident cases from :		
Home, Streets, etc. to Hospital	9,393	8,742
Inter-Hospital transfers	12,702	12,386
Removals from places outside the City	2,969	2,752
Removals to places outside the City	6,652	6,833
Total :	211,183	199,244
Cases requiring the service of Midwives :		
Hospital	744	675
Domiciliary	186	163
Total :	930	838
Removals outside the City :		
25 miles radius	8,988	8,945
50 miles radius	249	281
Beyond 50 miles radius	384	359
Total	9,621	9,585
Patients to railway stations to entrain...	350	314

VEHICLES.

Ambulances.	Mileage covered.	Petrol used (gallons.)	O/Authorities issues.
Non-infectious	526,127	48,512	307
Infectious	83,320	8,046	—
Accident	48,947	5,144	—
Sitting case cars	123,498	6,783	2
Sitting case ambulances ...	169,973	10,443	—
TOTALS	951,865	78,928	309

WELFARE SERVICES.

Residential Accommodation.

General

In the report for the year 1954, reference was made to the satisfactory position of Liverpool vis-a-vis other county boroughs in England and Wales in carrying out the mandatory services of the National Assistance Act, 1948 in regard to the provision of residential accommodation for aged, infirm and other persons needing care and attention. Although this relationship was maintained during the year 1955, the problem of providing adequate accommodation still continued to be of the utmost importance.

The statistical information prepared by the Institute of Municipal Treasurers and Accountants again shows that more residential accommodation is being provided in this City than in any other county borough. With regard to costs, the average cost per resident week for all county boroughs was £4 5s. 8d., whereas the average cost in Liverpool was £3 19s. 11d., a figure lower than those of fifty-eight other county boroughs. The net expenditure per thousand population for Liverpool was £230 14s. 0d. and the average net expenditure for all other county boroughs was £242 6s. 0d.

Residential Accommodation

On the 31st December, 1954, the total accommodation available for use (details being shown in Table 33 of the Appendix) was 1,285. At the end of the following twelve months the figure stood at 1,258 due to a reduction in the number of beds at Westminster House as a further stage was reached in the programme of upgrading that establishment. During the same period the number of persons on the approved waiting list for admission to residential accommodation rose from 88 to 177.

These figures emphasise the urgency of meeting the needs of a population where the numbers of persons in the upper age-groups are on the increase. At the same time the necessity has to be borne in mind of providing alternative accommodation for a number of residents from Westminster House during the programme of upgrading.

The steps taken to meet these difficulties included a start in the erection of a new hostel for 57 persons on the Croxteth Estate, and a commencement in the adaptation of Croxteth Lodge, Ullet Road, which will accommodate 31 persons. In addition, a further house, Derby

Home, has been purchased which will accommodate 18 persons in the first instance, and ultimately a further 22 when an extension is built. The Estate Committee were also in the position to transfer to the Health Committee a large house in Ullet Road and when the necessary adaptations have been completed it will accommodate 27 residents.

During the year, 366 persons were admitted to residential accommodation and from particulars contained in Table 34, it will be seen that 72 houses and flats were vacated which were made available for families in urgent need of housing accommodation.

Westminster House

The programme of upgrading this large establishment, started in 1954, was continued during the year. The large central hall, used for religious and recreational purposes, was redecorated throughout and the existing wooden pews are being replaced by suitable chairs.

In view of the urgent need for beds for frail ambulant residents, a portion of the available accommodation has been adapted to provide for a unit equipped with modern furnishings to house 28 persons in this category.

Another separate unit, known as House No. 11, was also completed which now accommodates 45 female frail ambulant residents in more homely conditions. The work of constructing three further similar units is in hand.

Hostels

The standard of accommodation was maintained in all the hostels, and the scheme for the provision of books from the public libraries, introduced in the previous year, has been greatly appreciated.

The Merseyside Hospitals Council very kindly granted a further sum of £500 for the provision of television, and this benefaction enabled sets to be installed at six hostels. All the residential establishments now possess this amenity.

During the previous year, through arrangements made by the Merseyside Hospitals Council, a broadcast line was installed at New Grafton House which enables the residents to hear commentaries of football matches held on the grounds of the Everton and Liverpool Clubs. The broadcasts have been keenly appreciated.

In addition to the number of residents accommodated in establishments administered by the City Council, 133 Liverpool residents are maintained in establishments administered by voluntary organisations and other local authorities. The income of each resident is supplemented appropriately by the City Council to enable him (or her) to pay the agreed charge for maintenance.

Particulars of the number of residents maintained in these homes, together with information relating to the admissions, discharges and deaths are contained in Table 35.

Temporary Accommodation.

The Liaison Sub-Committee has continued to deal with the question of temporary accommodation, and there are still reasonable grounds for the belief that the problem is being contained within reasonable dimensions.

Lower Breck Road

On one occasion the numbers accommodated at Lower Breck Road fell to the record low figure of 32, but this, unfortunately, was not maintained and the monthly average figure has been in the region of 70.

Arrangements were made with the Liverpool Regional Hospital Board in the early part of the year to reduce the reserved accommodation from 90 to 74 beds effecting a considerable saving in expenditure.

In June, when shipping was held up in the Port on account of a strike, many passengers were stranded and on one occasion it became necessary to accommodate 32 people in the temporary accommodation, and on another, 35 people. It was extremely fortunate that these were occasions when the numbers of persons already resident were small, and also that the travellers only required accommodation for a brief period.

A displaced family from Burma, consisting of husband, wife and five children, arrived in Liverpool during the year, and it became necessary to accommodate for some months all but the husband who made his own arrangements.

On occasions it has been necessary to accommodate families who have emigrated from Ireland and due to the close liaison maintained with the National Assistance Board and voluntary organisations concerned, their stay has been of short duration.

The general living conditions in the premises are much improved and the decoration of the quarters, commenced in 1954, was completed during the year.

Particulars showing the number of persons admitted to and discharged from temporary accommodation during the year are contained in Table 36.

Domiciliary Welfare Services.

Table 37 sets out in statistical form details of some of the activities of the field workers during the year. Primarily the welfare visitors are concerned with persons needing care and attention who seek residential accommodation, and the development of services for permanently handicapped persons. During the year, 12,800 visits were made by these officers, nearly 3,000 more than in the previous year, a factor which indicates the large increase in the demand for their services.

Although many interested bodies have been asked to inform the department of any elderly person in need of help, cases still come to light of old people, mostly living alone, where the home conditions are most unsatisfactory. In some instances the old person has had to be removed to residential accommodation or dealt with under compulsory powers as indicated in a later paragraph in this section. It is hoped that still greater efforts of all the organisations concerned will prevent a deterioration in the condition of many old folk to the stage where it is almost too late to be of help to them.

The following are a few of the various problems dealt with during the year by the welfare visitors.

1. *A young epileptic man, aged* 31, who has suffered from fits since early childhood. He was admitted to an epileptic colony at the age of 16, but only stayed a few days. Since the case was first referred to the Department, in 1950, efforts have been made to obtain suitable employment for him. He has had a great many jobs, and is very anxious to do some work, but when it is found that he has epilepsy he is dismissed. He is unable to occupy his time, and is a trouble to himself and his family. He was recently involved in a street fight, probably due to the fact that he is irritable and short-tempered. Following this he was persuaded to

go to an epileptic colony again. He did not settle down, complaining about the behaviour of the other residents, and returned home after ten days. The problem therefore remains until an employer can be found who is prepared to give permanent employment in some suitable job to a man who is subject to fits.

2. *A man, aged* 40, now living by himself in a six-roomed house in the North End of Liverpool has been visited frequently by this department during the last four years. He very seldom goes out of doors, as a great fear overcomes him every time an effort has been made to induce him to come out. His doctor and a psychiatrist have visited him at his home, but were unable to get him to agree to have treatment at a rehabilitation centre.

His aunt calls once a week with food provisions and National Assistance allowance. Although every effort has been made by the National Assistance Board in providing clothes and hair-cutting facilities, and frequent visits have been made by welfare visitors, he prefers to live the life of a recluse. At present he is not a case for removal by the Mental Health Service, or action under Section 47 of the National Assistance Act, 1948.

3. *A woman in her early* 60's has been known to this department for a number of years. She has been offered help by a great number of people, but all offers have been refused. She is living in the top two rooms of a very old house in the City centre. They are in a very bad state of repair and she does no cleaning; consequently there is considerable accumulation of rubbish and filth. The woman herself is refined in manner and appearance. She maintains that she can clean up herself in spite of having a bad heart. Her doctor says there is no physical reason why she should not manage. This woman has relatives of a superior type, but they have given up efforts to change her dirty way of life.

The sanitary department had served a notice on the landlord to carry out repairs to the property, but workmen would not enter these filthy rooms. It was felt that it would be undesirable to take the woman to Court to clean the premises because she is a pensioner and has a difficult personality. Later, however, the

landlord agreed to put the property in order. The tenants are trying to terminate the tenancy by refusing the rent, but she leaves it in their room.

Removal under Section 47 has been considered, but as the woman is so active no action could be taken. It was hoped that the rooms could be cleaned whilst she was away.

4. *An old lady referred by the Vicar of her Church* being in need of care and attention also residential accommodation. Whilst arrangements were being made for her admission to a hostel and for the disposal of her effects, the old lady's physical and mental condition suddenly deteriorated very rapidly. She was admitted to hospital where she remained for fourteen months. A note was then received from the almoner to the effect that the old lady had requested and been granted her discharge.

A welfare visitor called and found things in a rather bad way as the old lady had fallen and cut her head, was very confused and unaware of a very strong smell of gas. The welfare visitor telephoned the doctor, the Gas Board and the domestic help bureau, all of whom promised to call.

Weekly visits were paid and, but for the kindness of her neighbours, this old lady, who was becoming increasingly difficult and dirty, would have died (she cancelled the arrangements for domestic help almost immediately). Every effort was made to persuade the old lady to re-enter hospital, but without success.

These conditions continued for four months when the old lady's state became so deplorable and the condition of the house beyond description that the hospital in which she had previously been a patient agreed to re-admit the old lady, if she could be persuaded to return. This information was then passed on to the old lady's doctor who called to see her and told her she really must enter hospital for a few weeks; he suggested the welfare visitor be present when the ambulance called. This suggestion was complied with and the old lady entered the ambulance without demur.

The welfare visitor arranged with the vicar, who has power of attorney, to have the house cleaned up and paid the outstanding rent, coal, gas and electricity accounts, the mound of rubbish resulting from the cleaning up was cleared away.

This old lady is now once again insisting on her discharge and is considered by the hospital authorities to be fit to live alone once more.

Removal to Suitable Premises of Persons in Need of Care and Attention.

During the year it was necessary to remove, compulsorily, twelve persons under Section 47 of the National Assistance Act, 1948. They were either suffering from grave chronic disease, or were aged, infirm, etc., and living in insanitary conditions, or a combination of these circumstances existed. All were not able to devote to themselves or were not receiving from other persons proper care and attention. Orders were obtained for compulsory removal, the period in each case being for not exceding three weeks.

Nine of the persons were removed to hospital and three to residential accommodation. It was considered that one of the persons removed to hospital would still need treatment at the end of the period of three weeks and an order was made extending the original order for a period of not exceeding three months. Three of the patients subsequently died, six were still in hospital or residential accommodation at the end of the year, and three had been discharged.

River View Rest Centre for Elderly Persons.

River View Rest Centre

This highly successful venture, dating back to the Coronation celebrations of 1953, continued to increase in popularity, and the number of persons attending has increased to a daily average of about 200, as many as 300 or more being present on some days during the summer.

The premises are managed by members of the Women's Voluntary Services and are open daily from 10.30 a.m. to 4 p.m. (except Sundays). Special functions are held occasionally, such as an anniversary party, etc., which are also well attended. Additional furnishings and fittings provided from benefaction or the profits derived from the sale of refreshments have helped to make the building more comfortable.

The provision of similar centres in other parts of the City is at present receiving the consideration of the Health Committee.

Mobile Meals.

This service has operated on an experimental basis since December 1951 in an area within a radius of approximately one mile from Westminster House. Those participating are mainly aged people who, on the recommendation of doctors, etc., would benefit from a hot mid-day meal which they are unable to prepare themselves. Meals are supplied from Westminster House and the necessary equipment is provided by the City Council. The personnel manning the service are members of the Women's Voluntary Services and an average of about 50 meals are supplied on each of three days a week.

Registration of Disabled Persons' and Old People's Homes.

At the present time there are 25 homes registered, 15 being administered by voluntary bodies and the remainder by private individuals. The homes are inspected by officers of the Welfare Section at regular intervals to ensure that the standard of accommodation is being maintained in accordance with the City Council's requirements.

Welfare of Handicapped Persons.

In the previous report mention was made of the premises 100, Walton Village, which had been placed, free of charge, at the disposal of some of the smaller groups and associations in the City concerned with the welfare of handicapped persons.

This arrangement has proved exceedingly popular with the bodies concerned and apart from regular use of the building for meetings, recreation, etc., special functions are held such as film shows, whist-drives, rummage sales, etc. The building is ideally suited for handicapped persons as all the accommodation is on the ground floor. During the year additional amenities were provided by the City Council in the shape of fluorescent lighting, tubular heating, etc. The following organisations continue to make use of the premises:—

Infantile Paralysis Fellowship (Merseyside Branch).
Merseyside Hard of Hearing Club.
Merseyside and Wirral Group Invalid Tricycle Association.
Spastic Fellowship (Merseyside Branch).
War Pensioners' Handicraft Club.

Members of the staff of the department hold joint meetings at regular intervals with members of these organisations when matters of common interest are discussed.

Blind Welfare Statistics

During the year, 212 applicants for admission to the registers of blind or partially sighted persons were examined by ophthalmic surgeons. Of these, 151 were found to be blind and 44 partially sighted. An observation register is maintained in respect of the partially sighted persons and similar services are made available to them as for the blind.

Particulars of the numbers of registered blind and partially sighted persons in the various age-groups are contained in Tables 38 and 39.

Table 40 shows a summary of the reports received during the year indicating, under the headings of cataract, glaucoma, retrolental fibroplasia in premature infants and other causes, whether treatment was recommended and, if so, whether it was medical or surgical.

Blind Employment.

Blind Employment

The discussions between representatives of the various local authorities on Merseyside concerned with the employment of blind persons, following on consultations with representatives of the workshops, have been concluded for the time being. A significant opinion of the local authority representatives was to the effect that whilst there will be a continuing need for special workshops for blind persons, blind persons should in the future be trained as far as possible for and employed in sighted industry. It was recommended, therefore, that consultation should take place with local youth employment committees, or other appropriate bodies, to ensure that the fullest use is made of the specialist services of the placement officers of the Royal National Institute for the Blind in placing blind children in open industry when they leave school.

There will, of course, still be blind persons who are incapable of physically meeting the requirements of open industry, but before they are accepted for training in special schools concerned with the trades operated in blind workshops, placement in open industry should always be carefully considered.

At the 31st December, 1955, the following numbers of blind persons were engaged in the various trades operated in the blind workshops:—

Blind Workshops

Workshops for the Blind, Cornwallis Street.

Basket Making	12	
Brush Making	24	
Mat Making	31	
Upholstery	8	
		75

School for the Blind, Hardman Street.

*Basket Making	3	
Boot Repairing	1	
Chair Caning	3	
Machine Knitting	4	
Mat Making	2	
		13

Catholic Blind Institute, Brunswick Road.

Basket Making	1	
Machine Knitting	2	
Mat Making	3	
		6
	Total	94

* Includes one employee, partially sighted.

Sighted Industry

The following numbers of blind persons were engaged in sighted industry:—

Basket Making	1
Clerks/Typists	3
Factory Operatives	52
Home Teachers	4
Labouring	2
Legal	1
Massage	1
Minister of Religion	1
Musicians and Music Teachers...	3
Newsvendor	1
Porters, etc.	7
School Teacher	1
Telephone Operators	16
Miscellaneous	12
	105

It is satisfactory to be able to say that the numbers of blind persons employed in sighted industry continue to exceed those in sheltered workshops.

The following blind persons were engaged in the Home Workers' Scheme and their incomes are supplemented by the City Council:—

Braille Copyist	1	
Machine Knitters	4	
Musicians and Music Teachers...	4	
Newsvendor and Hawker ...	1	
		10

Sir Robert Jones Workshops.

Sir Robert Jones Workshops

These Workshops, which were founded in 1902, provide sheltered employment for about 45 severely disabled persons in the trades of book binding, printing, boot and shoe repairs and Christmas card renovations. In the previous year the City Council grant-aided the workshops to the extend of £1,000 as there was a possibility of the management having to close down on account of continued trading losses.

The position was reviewed last year when it became apparent that it would be necessary to continue with financial aid to enable the workshops to carry on with their present efforts. A sum equivalent to that paid in the previous year was therefore paid by the City Council.

Deaf and Dumb Welfare.

Deaf and Dumb

The Liverpool Adult Deaf and Dumb Benevolent Society and the Catholic Deaf and Dumb Society of St. Vincent de Paul, provide welfare services on behalf of the City Council for these handicapped persons. Both are efficient organisations and the service is afforded to about 600 Liverpool residents. At the present time a per capita grant is made at the rate of £3 10s. 0d. per annum.

During the year, steps were taken to withdraw the representation from the Advisory Committee on Deaf and Dumb, as the Health Committee felt that it is only right that there should be direct representation on the governing boards of the two voluntary societies dealing with deaf and dumb within the City.

After much discussion, both voluntary societies indicated that they would be prepared to accept the direct representation in this way, and discussions are still continuing to decide the details of this representation.

Epileptics

Adult epileptics needing residential care and attention continued to be admitted, at the cost of the local authority, to colonies established for this purpose. Twenty-two persons were allocated vacancies during the year. Although most of the residents settle down quite well a few, for various reasons, particularly an anti-social outlook, are unable to adapt themselves to communal life and four persons left colonies during the year for that reason.

Spastics

The local voluntary organisation concerned with the welfare of spastics continued to work in close co-operation with the Department during the year.

Various types of homes have been opened, or are to be opened in the near future, by national bodies, and a number of cases have already been investigated with a view to their possible admission. Already one person has been admitted to a home administered by the National Spastics Society and arrangements were made for another to be admitted in the early part of 1956 to a home opened by the British Council for the Welfare of Spastics.

Accommodation (Handicapped Persons)

As in the case of the aged, the City Council has also the responsibility of providing residential accommodation for handicapped persons who are in need of care and attention. There are 100 persons accommodated in establishments administered by other local authorities and voluntary organisations, and their incomes are supplemented by the local authority to enable the standard charge for maintenance to be paid. Details of the various homes are contained in Table 41. A proposal is under consideration by the City Council to build a special hostel to accommodate a number of handicapped persons.

Protection of the property of persons admitted to hospitals or residential accommodation.

Protection of Property

During the year, 193 cases were referred to the Welfare Services Section where it was necessary, due to no other suitable arrangements having been made, to take steps to ensure the safety of persons' property. This function, one in which a great deal of care has to be exercised by the officials concerned, is increasing in volume. Houses and flats are made secure, inventories of furniture taken, and any cash recovered placed in safe custody with the City Treasurer. In the event of the death of a person whose property the Department is safeguarding, the appropriate steps are taken in connection with the administration of the deceased's estate.

In addition, 63 cases were dealt with where persons died and there was no next of kin. Where the estates of such persons were solvent, and no will had been found, the circumstances were referred to the Duchy of Lancaster and the instructions of that department acted upon.

The sum of £1,289 13s. 2d. in cash was recovered during the year from persons' effects and placed in safe custody. Also taken into safe keeping were securities, insurance policies, items of jewellery and documents of a confidential nature, etc.

Among the total cases dealt with were 35 referred by the police of persons who had been found dead at home, and 11 who had been taken ill either at home or elsewhere and removed to hospital.

Bereft Old People at Westminster House—by Dr. Robert Kemp.

The new units at Westminster House—mentioned by Professor Semple in his last annual report—are now proving a most valuable method of helping old people. They give help at a stage where experience shows the need to be greatest and at the same time least forthcoming. Those who are simply elderly can for many years find a home or a hostel so long as they can look after their own personal needs. Similarly those who need almost complete care and nursing can usually, in Liverpool at least, find a hospital bed. But the feebleness of really advanced age means little more activity than a seat at the fireside. In the absence of such a friendly fireside this is very rarely catered for. Hitherto such frail old people have often been forced to live in hospital because there was nowhere else to go—a situation that was unpleasant for the person who was not a patient and to the hospital which is not a hostel. Hostels themselves find it impossible to look after the really feeble old persons who are unable to dress themselves, climb stairs and be up all day. Left by themselves in their own homes without help they may become appallingly neglected.

When those who are simply old and feeble are put into ordinary Part III accommodation, such as can be seen in the unaltered parts of Westminster House, and in the older institutions, they sit dull and apathetic all day. Not only is this apathy a dangerous precursor to mental and physical illness but it is a very pointed criticism of our ability to treat deserted old people in a kindly way. But by giving them comfort, colour, smaller units and care by friendly "house mothers" the old people revive interest, begin to gossip and become obviously much happier. This type of happiness, it should be realised, is the only condition under which both old or young people can be successfully looked after as a public responsibility. This point is not made for

sentimental reasons but because the depression of old age is the bug bear of any attempt to help them. Once they are cheerful there is no end to what they are capable of, while their disabilities recede amazingly. It must not be forgotten, either, that happiness and good conditions for the residents means much more pleasantness for the staff. We are apt to forget that the staff are the people who turn theories into reality.

The main difficulties that those who look after old people meet with are behaviour problems, which cannot always be smoothed over even by the utmost tact. These are particularly common, even to the extent of physical attack, among the residents of Westminster House under the old conditions. They are not due to any real mental disturbance in a psychiatric sense but to the bereft position in which these people find themselves. Without exception, whether physically handicapped, mentally handicapped or really old, the residents cannot care for themselves. Generally they have no relatives at all to help them and this fact recurs time and time again. Or in a minority they have antagonised their relatives or friends by antisocial behaviour. It is this sense of desertion or friendlessness which gives the marked depression and resultant difficultness and quarrelling. The best antidote, except in the real psychopaths and alcoholics, is the comfort and kindness of the new regime of small houses. Everything further than can awake and capture interest will help to lessen temperamental outbursts. All kinds of activities and entertainments are to be encouraged. Every improvement in amenities will be amply repaid in good behaviour.

After a little experience in the running of the new frail ambulant units it will almost certainly be found that the best results follow a policy which reproduces "the seat at the fireside". A simple routine day where the old man or woman want to do as much as their limited powers allow in the certainty that their individuality is respected and that they have some place to call their own. Such a plan is bound to be successful and we might be excused for thinking that it is the ideal solution for simple old age. It will be reminiscent of the Cottage Homes started at Fazakerley more than fifty years ago. But however admirable an institution may be it can never be the final answer to the limitations of either age or youth. The best answer for deprived children is, of course, a real home by adoption or boarding out. Similarly with the aged, the ideal is a normal home life in the community and, if possible, in close association with family and friends.

The new Westminster House will probably be a model development and indeed it will always be needed, and is another step along the road of learning to care for old age.

The more purely medical problems of the residents have raised special difficulty. The new sick bays have proved very successful and throughout this winter they have coped with all the short term illness. As there is smooth liaison with the Geriatric Unit at Newsham General Hospital and with Walton Hospital, it has been easily possible to transfer any serious or long-term cases immediately to a hospital bed. Today it is possible to do a great deal both surgically and medically for people in the seventies and the eighties. Not only should every effort be made to get the residents such active treatment but Westminster House should never be thought of as having a medical or hospital function at all.

HOUSING POINTS SCHEME

During 1955 a total of 3,960 general medical cases, 780 pulmonary tuberculosis and 49 non-pulmonary tuberculosis cases applied for assistance in rehousing.

Over-crowding

A further 882 applications were received in respect of non-medical cases, and reports concerning 346 grossly overcrowded families were forwarded to the City Architect and Director of Housing.

1,594 general medical cases were awarded points and 40 general medical cases and 39 tuberculosis cases were recommended to the Director of Housing for submission to the Allocation (Special) Sub-Committee.

Allocation of Points

The allocation of points is designed to enable the medical officer of health to give assistance in those cases which, for reason of health, should receive some degree of priority in rehousing. There are two forms which this assistance may take:—

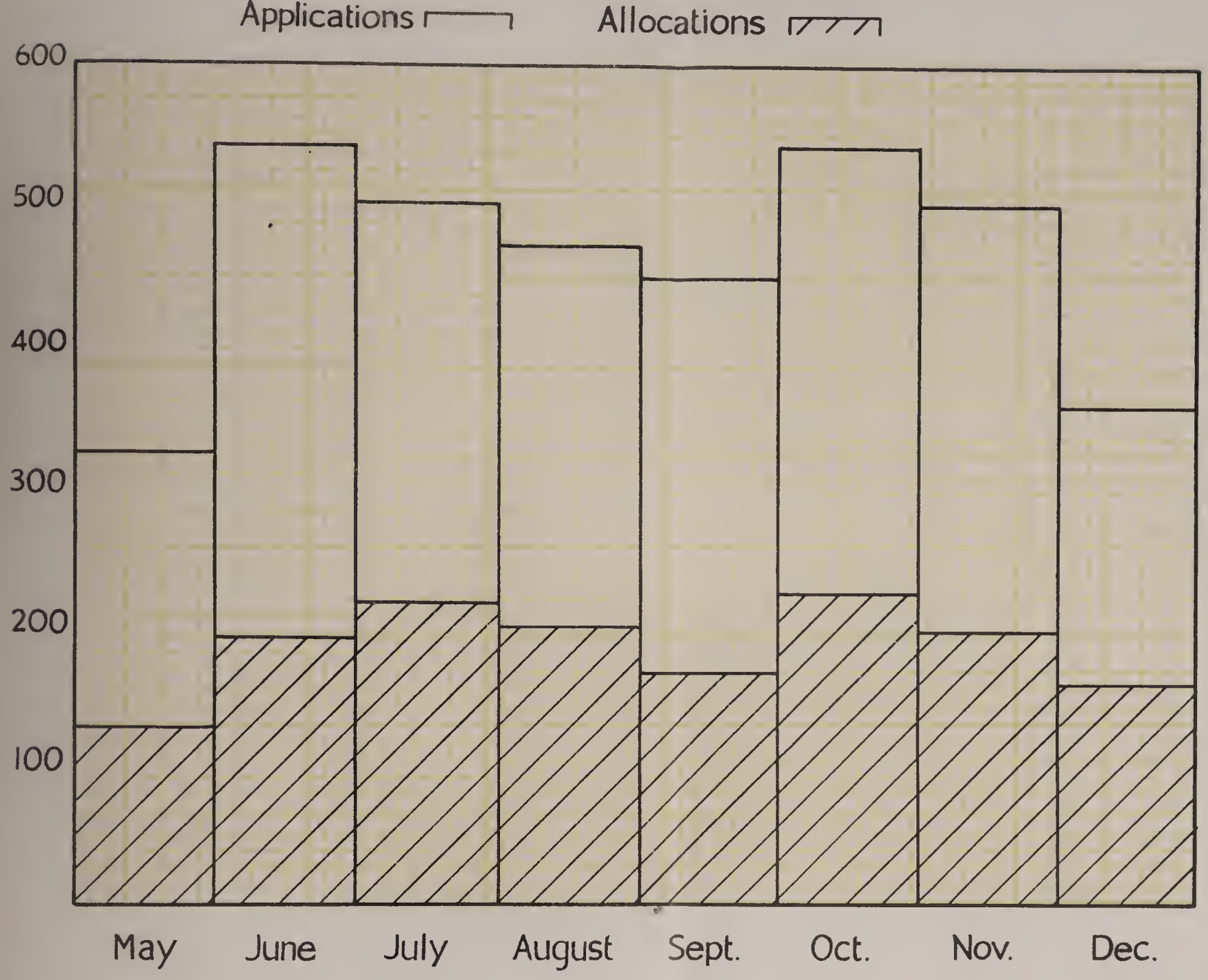
(1) Additional points may be awarded and added to the applicant's basic points. For general medical cases a maximum of two points can be given and for tuberculosis cases up to five points. (In many cases this brings the applicant into the allocation group and he is assured of rehousing. A close liaison exists with the housing department, and many such cases are given priority within the actual allocation group on the recommendation of the medical officer of health.)

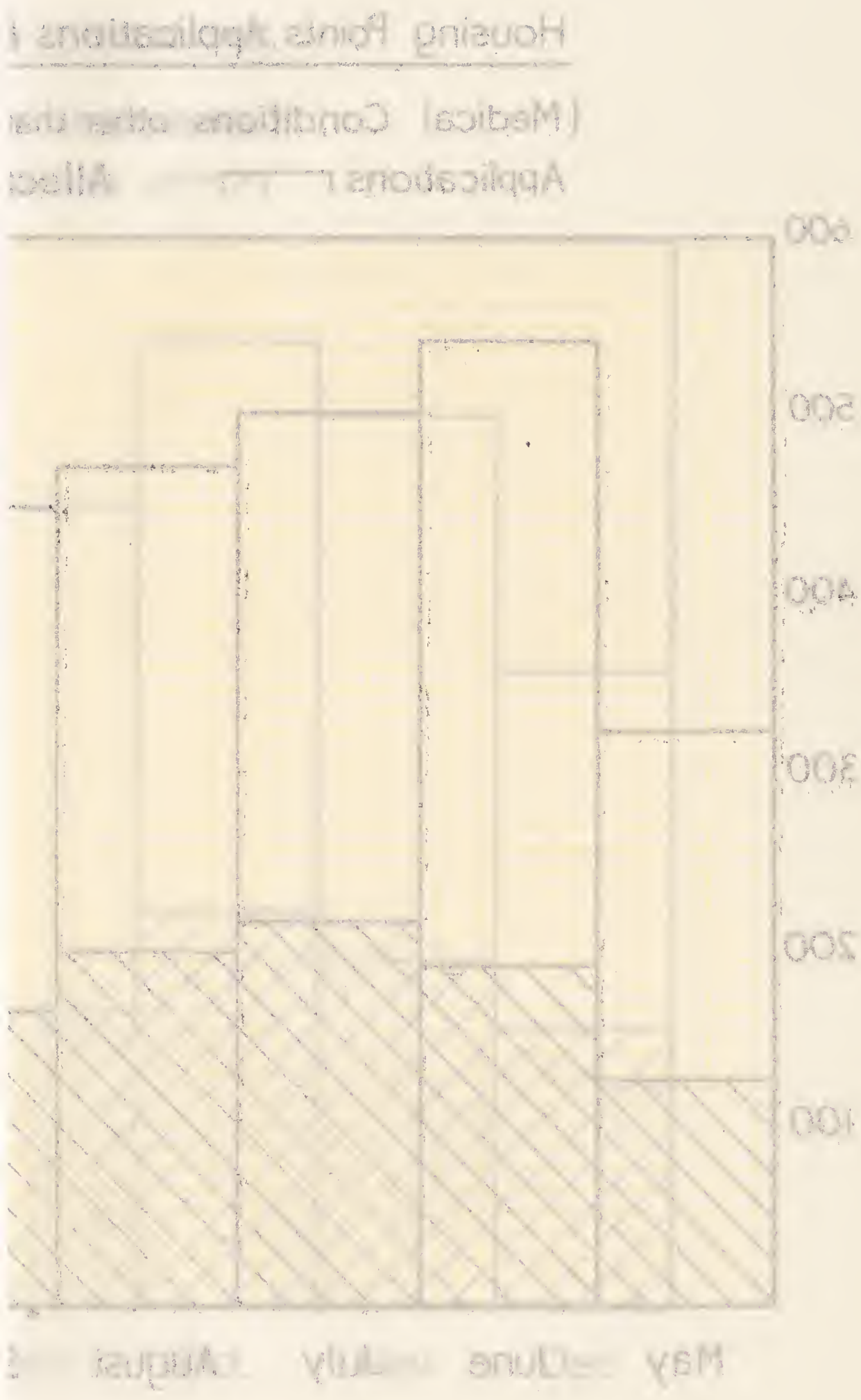
(2) Cases of special urgency may be brought before the Allocation (Special) Sub-Committee. If approved, they are offered rehousing within approximately one month.

In all the general cases a medical certificate (form H.1.) submitted by their medical practitioners serves as the starting point of the enquiry. Most tuberculosis cases are also initiated by a form H.1, the remainder being first brought up by the tuberculosis visitors. All cases are investigated in the first instance by a sanitary inspector who completes a report on the housing conditions. This report includes such details as the size of the family; type of house and number of rooms occupied; extent of overcrowding, condition of house and state of cleanliness, w.c. accommodation, etc.

Housing Points Applications & Allocations.

(Medical Conditions other than tuberculosis.)




Housing Points Applications
(Medical Conditions other than
Applications
Allo
600
500
400
300
200
100
May
June
July
August

In tuberculosis cases a report is also submitted by the tuberculosis visitor, giving such details as the type and extent of the disease, state of infectivity, family history of tuberculosis, etc. At this stage each case is submitted for assessment to a medical officer. Extra housing points may be awarded as already indicated, while those cases which appear to be sufficiently urgent are visited personally, with a view to submitting them to the Allocation (Special) Sub-Committee. Special care is taken to ensure that the housing department is notified of any additional points granted for medical conditions.

Residents Outside City Boundary

Where an applicant resides outside the city boundary and is on the city housing register contact is made with the local authority concerned and a housing report and medical certificate obtained. The case is then assessed in the usual manner.

Transfers

For housing applicants who already live in Corporation property and for medical reasons request a transfer, a close liaison exists with the housing department. A letter of recommendation from the medical officer is usually sufficient to obtain the necessary transfer.

For statistical summary see Tables 42 and 43.

SANITARY ADMINISTRATION.

Staff Recruitment

The recruitment of young enthusiastic assistant sanitary inspectors has helped considerably in dealing with the many problems which have arisen throughout the year, the staff having been increased to 85.

Burst Pipes

In the early part of the year there was a large number of burst pipes, approaching some 7,000, together with all the extra duties and visits that the special problems bring when the visit has to be made.

Dilapidations

The serious dilapidations existing in the City has almost made it impossible to carry out routine inspections. When as a result of a special compaint, or a burst pipe, the inspector visits the premises it may be that he is saddled with 20 to 30 inspections in the samc street. Many people wait until the inspector calls in the street and consequently conditions have worsened considerably and many dilapidations are beyond repair.

Adaptability of Inspectors

The fluctuation of duties and constant interchanging within the department has caused the general inspectorate to become extremely adaptable in meeting all situations. For example, during a smog period the whole of the staff buckled to and tackled every factory in the town to cut down smoke cmission and there was a considerable improvement in the density of the smog as a result of this concentrated visitation.

Problems

Throughout thc year new procedures have been introduced and many of the problems which have been almost insolublc are now being swept away by the introduction of new legislation.

Abandoned Houses

The abandoned house is no longer a problem as far as getting repairs completed, as the procedure is now clearly defined in the work in default clauses and applied rigidly.

Choked Drains

The serious problem of the choked drain existing for several weeks, or even months, has disappeared by the introduction of the Liverpool Corporation Act, 1955, which incorporates a special section for dealing with this problem. Immediately on receipt of the complaint if the owner fails to carry out the work within 48 hours, then the City Engineer and Surveyor's Department, upon instructions, immediately clears the choke.

These may be considered small improvements, but when they are counted against all the other headaches, then they make a formidable total.

Exhibitions

Although the staff was actively engaged in finishing off the housing survey, special complaints and the overlap from the winter, they were still able to find time and assisted in two exhibitions, one at the Liverpool Show, when 20-30 volunteered, working during the evenings and on the Saturday, when an exhibition of public health matters was arranged, including clean food. Later in the year a pests exhibition at the School of Hygiene was organised which the staff supported enthusiastically in working as stewards, guides and even labouring when the exhibition was being erected.

Service

However, the section is now rapidly approaching pre-war strength and new spheres of acitivity are opening out each day. New Acts all dealing with some aspect of environmental health, whether it be associated with workplaces, social clubs, hairdressing or the many multifarious duties now included within the Public Health Department.

Work in Default

There will have to be, during the next few months, serious consideration given to stepping up the volume of work carried out in default. Experience during the year has shown that this is the swiftest remedy, for not only does it secure the abatement of the nuisance concerned, but acts as a spur upon the landlord's workmen to beat the local authority to the job.

Reduction of Time of Outstanding Notices Weekly Sub-committee

There has been a gradual reduction in the average time for a notice to be outstanding from 3-6 months to approximately 4-6 weeks. There is now a weekly sub-committee dealing with all these urgent matters and no delay is occasioned under any circumstance, particularly in regard to urgent defective conditions.

Liverpool Corporation Act, 1955

Considerable time was spent during the early part of the year preparing evidence in connection with the Liverpool Corporation Act. Later a deputation gave evidence in London regarding the need for the various clauses. It is gratifying to record that the evidence submitted in respect of public health matters resulted in all the clauses being retained and they are now incorporated in the Liverpool Corporation Act, 1955.

Sub-letting and Sanitary Accommodation

There are thousands of applicants for houses on the housing register and houses will continue to be sub-let to meet the unceasing demand for accommodation. The sub-letting of large houses has caused a serious problem with regard to sanitary accommodation, as these houses were planned for one family and the sanitary accommodation placed in the most suitable position for a single tenancy. The position of the sanitary accommodation in many of these houses is such that the approach is through another room and in other cases it is necessary to travel several flights of stairs. These lettings can now be dealt with as separate premises under the provisions of the 1955 Act.

Mobile Sanitary Accommodation

Complaints have been received regarding insufficient sanitary accommodation at certain functions which attract large crowds, such as football matches, processions, etc. The provision of mobile conveniences would be the most satisfactory answer to this problem.

Derelict Houses and Neglected Sites

There are a number of vacant derelict buildings in the City and many neglected sites where houses have been demolished but the debris has not been removed. Many of these buildings and sites are both ugly and a source of annoyance to persons in the surrounding neighbourhood. The local authority has now obtained additional power under the provisions of the Liverpool Corporation Act, 1955 to deal with these matters.

Pigeons and Starlings

Pigeons and starlings cause appreciable damage to public buildings by erosion of stonework and staining ornamental work and statues, etc. Dwellinghouses are also affected to a lesser degree. For the purpose of abating or mitigating any nuisance, annoyance or damage caused in the City, the Corporation are now authorised to destroy pigeons and starlings. Certain experimental work is now being carried out to determine the most practical and economic method of destroying these birds.

GENERAL DUTIES.

Summary of Inspections

During the year, 268,046 visits and inspections were carried out and 37,627 notices issued under the various acts and byelaws, 31,700 complaints were received from occupiers of dwellinghouses and 1,219 complaints were made by the public in respect of shops, cafes, public houses, etc. Each complaint was investigated and the necessary action taken.

Legal Proceedings

The majority of owners comply with the notices without any further action, but there are a number who do not co-operate, and during the year, 308 informations were laid under the Public Health, Shops, Food and Drugs and Local Acts. Seventy-seven orders were made and penalties amounted to £431.

Work in Default by Owners

In addition to legal proceedings, certain work was carried out by the local authority upon default of the owner, particularly in respect of abandoned houses and where the owners were without financial means. Forty-three houses were dealt with in this manner, also 26 drains were cleared by the local authority under the provisions of Section 19 of the Liverpool Corporation Act, 1955. The money spent is recovered through the normal procedure incorporated in the Public Health Act, 1936. The amount concerned is also registered against the property in the Local Land Charges Register, in accordance with the Land Charges Act, 1925. This provides for ultimate collection and, therefore, there can be no loss to the local authority by this procedure.

Recovery of cost of Repairs

Departmental References

Co-operation from other departments of the Corporation resulted in 5,938 references being received requiring the attention of the sanitary inspectors, and 6,898 references were sent to other departments.

Infectious Disease Enquiries

The following tables indicate visits made by sanitary inspectors to houses where infectious disease has occurred and the number of enquiries made regarding contacts of infectious disease.

No. of investigations relating to cases of infectious disease	3,670
No. of enquiries regarding contacts of infectious disease ...	3,772
No. of visits to infected houses	3,508
No. of enquiries relating to smallpox contacts	14

Food Poisoning

A senior inspector and a number of district inspectors have been specially trained for investigating cases of food poisoning. The information obtained by the inspectors is providing a permanent register of infections, for reference purposes. The Food Hygiene Regulations, 1955, require food handlers suffering from certain infections to notify the Medical Officer of Health and all notifications will be included in the register.

During the early part of the year a large number of inspectors were engaged on the collection of specimens for bacteriological examination and routine inspections could not be maintained. This has now been

fully overcome by the appointment of an assistant inspector using a motor-cycle to collect all specimens, releasing the qualified inspectors for other urgent duties.

Specimens. Food Poisoning Investigations

7,278 specimens from 3,069 persons were submitted for bacteriological examination. 1,391 specimens from 869 persons proved positive.

Movable Dwellings

There are no licensed sites within the City but from time to time caravans have been sited on unfenced land. During the year, 92 visits were made to such sites where caravans were stationed. Daily observations were made on individual caravans to obtain evidence of occupation, which is necessary before legal proceedings can be commenced. All the caravans were removed without resource to legal proceedings. Additional power has now been obtained under the Liverpool Corporation Act, 1955 to deal with movable dwellings.

Drain Testing

A total of 1,765 drainage systems were tested, a positive result being obtained in 853 of the systems. Repairs have been completed in all cases where a positive result was obtained. The assistance of the City Engineer and Surveyor's Department has been utilised whenever flushing has been required. Thirty-six choked public sewers requiring urgent attention and 16 defective public sewers were referred to the City Engineer and Surveyor under the provisions of Section 24 of the Public Health Act, 1936.

Clearing of Drains

All stopped up drains, private sewers and soil pipes are now dealt with under the provisions of Section 19 of the Liverpool Corporation Act, 1955, the Corporation being empowered to remove the stoppage after giving 48 hours notice. The costs incurred being recovered in accordance with the provisions of the Act.

Common Lodging Houses

There are 15 registered common lodging houses in the City, 14 providing accommodation for 974 males and one providing accommodation for 94 females. No lodging houses were closed during the year and no new houses registered. Applications were received from 15 keepers for renewal of registration as keepers, the applications were granted for a further period of twelve months. The sanitary inspectors made 393 visits during the day time, and 30 night inspections, 15 notices were served in respect of byelaw infringements. Of 6,711 beds examined, 46

were found verminous, and these were cleansed by the local authority, 36 lodgers found to be verminous were also cleansed by the local authority.

Seamen's Lodging Houses

There are 16 seamen's lodging houses on the register, 7 are not licensed under the byelaws as seamen's lodging houses. Accommodation is provided for British, Chinese, Arab, Somali and Indian seamen. The total accommodation available for seamen is 950. Sanitary inspectors made 222 day inspections and 20 night inspections, byelaw infringements were dealt with either verbally or by the service of notice. The inspectors examined 2,850 beds and appropriate action was taken where necessary.

Canal Boats

The Docks and Inland Waterways Executive, North Western Division, are the proprietors of the Leeds and Liverpool Canal, the only canal having direct communication with Liverpool. The length of the waterway within the City (exclusive of the locks communicating with the dock estate) is approximately three miles.

Liverpool is one of several registration authorities for boats used as dwellings plying on the canal, the details of the boats registered by this authority are as follows:—

No. of Boats

Boats on register, 1st January, 1955	421
New boats registered	1
Boats removed from register	4
Boats on register, 31st December, 1955	418

Four boats ceased to be used as dwellings during the year and were removed from the register at the owners' request.

Type of Boat

Motor-propelled boats	99
Steam-propelled boats	62
Motor-towed boats	45
Steam-towed boats	124
Horse-drawn boats	88
Total	418

No. of Boats Inspected

546 visits to 201 canal boats were made during the year, 147 boats being registered at Liverpool, 1 at Leeds, 10 at Runcorn, 8 at Manchester and 35 boats were not used as dwellings.

Types of Boats Inspected

All boats examined were "wide" boats, 68 being motor-propelled, 8 steam-propelled, 55 motor-towed, 47 steam-towed and 23 horse-drawn.

Contraventions

Contraventions of the Act and Regulations were found on 13 boats, of which number, 2 were registered by other authorities. The nature of the contraventions are as follows:—

Nature of contravention.	Reported.	Remedied.
No certificate of registration on board	2	2
Registration, lettering and numbering not legible or incorrect	5	4
Leaking decks	3	3
Defective stoves or stove pipes	6	5
Cabins requiring repainting	2	3
Defective water casks	1	2
Totals	19	19

Thirteen written notices with respect to the contraventions were sent to the owners concerned and 10 notices have been complied with.

No informations were laid during the year against owners or masters for infringements of the Act or Regulations.

Inspections by Port Health Authority

The inspectors of the Port Health Authority made 22 inspections of canal boats in the docks during the year. No contraventions were found.

Infectious Disease

No case of infectious sickness was reported as having occurred during the year on any canal boat visiting the district.

Population of Canal Boats

The number and sex of the persons found in occupation of the 166 canal boats used as dwellings are as follows:—

Men	332	
Women	Nil	
Children	Nil	
Total	332	(all were males over 14 years of age.)

No children of school age were found on canal boats during the year.

The Hydrogen Cyanide (Fumigation) Act, 1937

Official notice has been received in respect of two fumigations under the Hydrogen Cyanide (Fumigation) Act, 1937. Sanitary inspectors attended the fumigation of one dwellinghouse and one factory.

Verminous Articles

Under Section 83 of the Liverpool Corporation Act, 1936, no dealer shall sell or expose for sale any second-hand furniture, mattress, bed

linen or similar articles, if these are to his knowledge infested with bugs or if by taking reasonable precautions he could have known them to be infested.

Seventy-five visits were made by sanitary inspectors to second-hand shops and no infringements were observed.

Removal of Human Remains

Under the terms of licences issued from the Home Office, sanitary inspectors supervised the exhumation and re-interment of 10 bodies during the year, also the remains of 5 persons were shipped abroad, one to Canada, one to Italy and three to Germany.

Public Health Act, 1936, Section 54.

Filled up Ground

Inspections of trial holes were made on 37 filled up sites to ascertain whether the ground was free from faecal or offensive animal or vegetable matter, and that the site was suitable for building purposes.

Miscellaneous.

Stables

To prevent fly infestation, stables and manure depots are systematically visited by the sanitary inspectors, attention being paid to the frequent removal of manure and to general sanitation. 494 inspections were made, 87 stables being occupied.

Marine Stores

59 visits were made to 30 marine stores, no nuisances were observed.

Poultry Stores

Bi-weekly visits were made to seven poultry stores.

Parks

177 visits were made to sanitary conveniences within parks and gardens throughout the City.

Schools

687 visits were made to schools, the high standard of cleanliness continues to be maintained.

Furniture Removers

52 visits were made to the premises of furniture removers, 62 vans were inspected.

SLUM CLEARANCE and HOUSING.

Housing Achievement

The post-war housing effort has been marked by considerable achievement. Thousands of houses have been erected using unconventional methods of construction and novel materials to provide adequate accommodation containing everything which is considered necessary for modern family life. Despite this major effort and the consequent gradual elimination of sub-standard houses, the slums are still a major problem.

Selling and Sub-letting of Sub-standard Premises

Although it was said once that there is nothing new in housing, every month sees fresh complications arising from action taken by the local authority. For example occasionally sub-standard premises are vacated because occupiers are rehoused on account of their high points award, causing re-letting and even selling of the houses. This form of double rehousing slows down the slum clearance progress momentum. Efforts are being made to solve this problem and shortly a programme will be introduced.

Operations and Resolutions Arising from the Survey

The resolutions arising from the survey were introduced during the early part of the year and a programme formulated to remove many of the problems arising from the inspectors' visits to the houses.

Deferred Demolition

Perhaps the most difficult problem that has arisen is the operation of the deferred demolition clauses.

The survey showed that there were 14,441 houses which can be made tolerably habitable situated in clearance areas, and another 2,141, in isolated pockets, that could be made tolerably habitable.

Annual Representation

Although the local authority passed a resolution that some 2,000 houses should be represented throughout the year to comply with the requirements of the Minister concerning future programmes, particular difficulties have arisen with regard to the selection of houses for deferred demolition.

Good Tenants in Sub-Standard Houses.

Inspection of the premises has revealed that better type sub-standard houses capable of being considered as tolerably habitable are usually occupied by the better type of working class family who have striven to maintain their houses in a reasonable state of habitation. This class of family is very clean containing young healthy children, and naturally are the most enthusiastic in their desires to move from their squalid sur-

roundings. The problem, therefore, has to be faced as to whether this class of family should be condemned to further lengthy sojourns in sub-standard houses merely because they have been house-proud, yet their neighbour who is to be moved, has not bothered to carry out any preservation, cleaning or decorating.

The first solution then is consideration as to whether these groups of houses should be left standing and used as decanting areas. If they were to be used in a scheme of this nature, they have many advantages, for in addition to being in reasonable condition they have low rentals and are situated within easy reach of dockland and the industrial areas of the City. Due to these economic considerations, the tenancy of one of these houses would possibly prove very attractive to a number of families.

Developments and Layout

Licensed Premises in Slum Areas

There is, of course, the further difficulty regarding suitable redevelopment and layout, for if clusters of houses are left standing, it may be necessary for tenements to be erected in close proximity to and even surrounding this type of property. This would promulgate the incongruous situation already to be seen in this City, of public houses standing like lonely sentinels on cleared sites, monuments to bygone ages.

Special Duties

Individual reports compiled in respect of houses in the City have proved of great benefit in preventing many people from involving themselves in financial difficulty by purchasing houses subject to local authority action.

Certificates of Disrepair

Although labelling houses as unfit may have brought about a certain amount of hardship to owners and vendors of property, it has certainly acted as a brake on applications for Certificates of Disrepair, for the owners know without doubt that notices of increase in such areas will be fraught with complications.

Assistance to Owners and Agents

Many owners and agents have been afforded facilities for discussion and inspection of records and it has been possible to indicate to certain owners where it may be advantageous to carry out specification of works before issuing notice of increase knowing there is reasonable chance of the increase being paid by the tenant pleased with the renovated house.

Dangers of Acquisition

The acquisition clauses in the Housing Repairs and Rents Act, 1954, have proved a two-edged weapon, for although large-scale acquisition may have been adopted in another city, the embarking upon such a financial burden is a risk hazard, and consequently a middle course under the Public Health Act procedure in carrying out work in default has proved more useful.

Co-operation of Technical Officers

Co-operation existing between the departments is encouraging and many joint consultations between technical officers are necessary before even the smallest area is contemplated for clearance.

Ageing Property

Liverpool's ageing property may be worse than other cities, for recent national statistics indicated that of the three million houses over 60 years of age, only one-third were declared unfit. In Liverpool, however, there are very few houses over 60 years of age complying with the standard laid down under Section 9 of the Housing Repairs and Rents Act, 1954.

Complications are developing each month with regard to the housing situation on land not for housing development. A good example being the Frank Street area which, although the Minister stated that the houses were unfit and quite rightly represented as a clearance area, a compulsory purchase order must be made because the land is zoned for educational purposes. This is just one example of the experiences now being gained.

Houses Used for Business Purposes

Conflicting decisions have been given in the City where houses have been converted into business premises. For example, a building used as a dwellinghouse and shop coloured pink on the map of the compulsory purchase order was changed to grey when the Minister confirmed the Order. In another instance where the premises comprised a dwellinghouse and shop only the portion of the building used as a shop was changed to grey.

Planning of Area

These complications have made it imperative that the area must be surveyed in great detail before it is even marked upon the map. Decisions are required to be made in regard to structures which were constructed as dwellinghouses and are now used as general shops, coal yards, light industrial premises and many other trades that spring up in these obsolete areas due to the desire for cheap premises.

The basic requirements for such a premises to be included as a dwellinghouse in an area are that the premises are not substantially altered and can revert to their former use as a dwellinghouse without major expense.

Further Developments

Two large areas, one in the north end of the City and the other in the south have been provisionally planned and are already well under way.

The Everton Brow area will provide one of the largest slum clearance developments in the history of the City, and the Mill Street area is another large area to be cleared.

Survey Results

The survey revealed that a total of 26,959 unfit houses were for demolition, 24,587 of these being situated within the inner zone which is included mainly in the 20-year programme, and 2,372 situated in the outer zone. In addition, 61,274 houses were shown to require major repairs, making a total of 88,233 unfit in accordance with Section 9 of the Housing Repairs and Rents Act, 1954.

Compulsory Purchase Orders and Clearance Orders made Since 1930

Since 1930 to the end of 1955, a total of 19,252 houses have been included in 284 Clearance Orders, 264 Compulsory Purchase Orders and 5 Declaration of Unfitness Orders.

Post War Slum Clearance

In 1947, activity in this direction recommenced and since that time to the end of 1955, 6 Clearance Orders, 51 Compulsory Purchase Orders and 5 Declaration of Unfitness Orders have been submitted for confirmation.

Number of Houses Demolished Since the War

The Orders include 4,736 houses containing 19,768 persons. Of these dwellings, 3,567 have been demolished which has necessitated the re-housing of 17,166 persons.

It is interesting to note that the average number of houses in each of the Orders made since the war is 76·4 in comparison with the overall average for the period 1930-55 of 34·8 houses per order, which indicates an increase in the number of properties included in areas since the war.

Clearance Areas Represented in 1955

The specialist housing inspectors were engaged upon the housing survey during the early months of 1955 but despite this added task, 1,003 houses were surveyed in detail preparatory to their inclusion in 15 Clearance Areas which were represented during the year. Of these

areas, three were declared Compulsory Purchase Orders and one a Clearance Order, the other 11 being in abeyance at the end of the year, including 945 houses and 4,020 persons.

Public Inquiries

The activities of previous years resulted in six public inquiries and two local hearings in connection with Orders made in respect of 17 Clearance Areas, containing 1,438 houses, and during the year, 34 Confirmation Orders were received in connection with 1,930 dwellings.

Land for Redevelopment

Shortage of land for housing development purposes within the City boundary is acute. It is, therefore, essential that the slum clearance programme be co-ordinated to the redevelopment scheme wherever possible so that the land thus cleared can be used to the best advantage.

This policy was as far as possible sustained, but in some cases areas had to be represented which did not fit in with the redevelopment proposals.

Individual Unfit Houses

Ninety-two unfit houses situated in isolated pockets or on land not zoned for housing purposes and unsuitable for inclusion in a clearance area were represented under the procedure laid down for the demolition of individual unfit houses under Section 11 of the Housing Act, 1936.

Demolition Orders

During the year, 59 Demolition Orders and 64 Closing Orders under Section 10 of the Local Government (Miscellaneous Provisions) Act were made, which included Orders made in respect of properties represented during the previous year. 92 houses subject to Orders made under this procedure were demolished.

Closing Orders

Where part of a building or an underground room is used for human habitation and is found to be unfit a Closing Order may be made under the procedure laid down in Section 12 of the Housing Act, 1936. Eighteen such cases were represented to the committee, 12 Orders were subsequently made and 6 were in abeyance at the close of the year.

Houses Re-occupied Under Licence as Temporary Living Accommodation

Of the 37 premises included in confirmed Clearance Orders and for which licences were issued for temporary re-occupation under Defence Regulation 68AA, only two remain in occupation. These two premises are now licensed under the Housing Repairs and Rents Act, 1954, Section 6, and in both instances before the licence was issued, extensive works of repair to the property were executed by the owner.

Certificates of Disrepair

The legal provisions relating to increases in rent also provide for the issue by the Local Authority of Certificates detailing all the defects of repair and structural faults which either render the house not in good repair or not reasonably fit for human habitation.

Statistics Relative to Certificates of Disrepair

713 applications for Certificates of Disrepair were received; in 601 cases certificates were granted by the Council and in another 4, certificates were formally refused. The remaining 108 applications were either withdrawn by the applicant or on investigation, the tenancy was not controlled by the provisions of the Rent Acts and, therefore, a certificate would not be applicable.

Inspections

The inspection of such premises requires an intimate knowledge of building practice, and the certificates issued are of necessity detailed and comprehensive. Nevertheless, the certificates issued have proved reasonable and well founded in that no owner has taken formal action in the courts.

Much time was expended during the year in dealing with queries relating to the certificates issued and examining the works of repair undertaken by the owner to obtain the revocation of the certificate.

Revocation of Certificates

During the 12 months, 439 applications from owners for the revocation of Certificates of Disrepair were received and 409 certificates were revoked. This figure includes 236 certificates granted in respect of applications received in 1955.

Improvement Grants

It is the Minister's declared intention to encourage owners to carry out improvements and conversions to their property. Provision is made under Section 20 of the Housing Act, 1949, for the local authority to give a financial grant equal to half the cost of such works where the total cost is over £100.

Conditions Imposed before Grant is made

The house when improved must provide satisfactory housing accommodation for the next 15 years, and must conform with the Minister's requirements under Circular 36/54 which sets out a minimum standard to bring such properties up to modern requirements.

During 1955, the response by owners has been disappointing, the majority of applications received being in respect of owner occupied houses. Many enquiries were made but only 164 applications were received.

Loans on Mortgage

Before an advance of money can be made by the local authority to any person for the purchase or construction of a house, they must be satisfied that the premises are or will be made in all respects fit for human habitation.

Inspections

A total of 843 houses were inspected for this purpose but applications in respect of 44 of these houses were subsequently withdrawn and a further 28 were rejected as unsuitable.

Cellar Dwellings

Basements of large houses are being used as living and sleeping accommodation by families who, by reason of the acute shortage of housing accommodation in the City have to resort to such rooms in contravention of Section 469 of the Liverpool Corporation Act, 1921.

In the course of their duties the inspectors found 28 basements being used as separate dwellings. Notices were issued to the owners and occupiers of the premises in each case and the housing department was informed for rehousing purposes.

Housing Act 1936 Part IV Over-Crowding

64,615 visits were made to houses in connection with the overcrowding provisions of the Housing Act, and 346 grossly overcrowded families were recommended for rehousing under the provisions of Section 85 of the Housing Act, 1936.

Sections 4 and 62 Housing Acts 1936/49

In 9 cases the name and address of the medical officer of health was not inscribed in the rent books, while in 2 cases the necessary summary of Sections 58, 59 and 61 of the Housing Act, 1936 was not inserted in the rent book. The number of persons permitted to occupy the houses were not inserted in 8 rent books. Informal notices were served in respect of these infringements and the rent books were corrected.

Houses Owned by the Local Authority

Total number of houses and flats owned by the local authority at 31st December, 1955 (excluding 19 houses built under the Housing Acts and subsequently sold and 3,500 temporary bungalows) including 180 houses and flats under the control of the County Borough of Bootle is 61,549, and the number of houses built in the last three years under the Housing Act, 1936—Part V, is 8,974.

INSPECTION OF FACTORIES.

The gradual expansion of the staff during the year has made it possible to extend the work undertaken in industrial premises and undertakings.

Certain duties are becoming more and more a matter of routine, mainly as a result of past efforts and the willing co-operation of managements, and infringements observed are usually of a minor character.

Co-operation with H.M. Inspectors of Factories

The inspectorate undertaking duties under the Factories Act possess a wide experience of industrial hygiene and of nuisances arising from factory operations and processes. An excellent feeling of co-operation has developed between H.M. Inspectors of Factories in the area and the sanitary inspectors, and there have been frequent meetings between these officers during the year.

Improvement in Sanitary Accommodation

Primitive and make-shift sanitation is rarely found today in factories. Employers have found that employees, be they manual workers or not, expect and demand a similar standard to the sanitary accommodation in their homes and the effect of this development can be seen in most factories where the construction and design of lavatories and the type of fittings is now satisfactory.

There is still a degree of wanton damage and disregard of the facilities by some workers, but by and large, the improvement appears to be appreciated by most employees. The sanitary inspectors' role in this development has been that of a propagandist and technical advisor and much of the improvement has been due to his persuasion and representation.

Industrial Nuisances

A number of complaints were received of dust and effluvia from industrial processes and activities causing discomfort and inconvenience to residents in certain neighbourhoods.

Dust and Fumes from Processes

Where the source of dust and visible fumes has been obvious, immediate action has been taken in each case by contacting the management of the offending factory and discussing appropriate measures to prevent the nuisance. As a general rule this step has been sufficient, but abatement notices were served in four cases before effective measures were taken to eliminate the trouble.

Complaints of this type of nuisance have included dust from brick crushing machines, lime and mortar mixing plants, fertilizer manufacture and fumes from the process of reclaiming of non-ferrous metal and the manufacture of zinc chloride.

Industrial Effluvia

Investigations to find the source of the emission into the atmosphere of odourous gases and effluvia, which has formed the subject of some complaints, has often been prolonged and puzzling and not completely successful before the nuisance has ceased to occur. Objectionable odours are usually ephemeral in character and happen at irregular intervals. The problem is often complicated by the inability of persons to describe accurately the particular smell and the fact that atmospheric conditions have a great influence on the gaseous pollutants which in some cases have their source far outside the City boundary.

Local effluvia nuisances which have been dealt with include the smells of paint solvents and various factory cooking processes.

Offensive smells in the Green Lane area were again traced to plant processing animal waste in the abattoir. This nuisance has now been virtually eliminated following consultation with this department by the installation of an effective washing and deodorising plant in one factory and a reduction in the temperature of processing in other cases.

Inspection of Factories

Factories are visited by sanitary inspectors appointed under the Act for the purpose of securing compliance with those provisions of the Factories Act, 1937. Particulars of the administration of the Act are set down in the Table on Form 572 (revised) issued by the Ministry of Labour and National Service. (Tables in statistical appendix.)

Outworkers

In accordance with the provisions of the Act outworkers' returns are received twice yearly, and the premises referred to in the returns are visited to ascertain whether work is carried on in any place which is, in the opinion of the local authority, injurious or dangerous to the health of persons employed therein.

The returns received during the year indicated that 302 outworkers were employed during the whole of the year at 240 premises. These were visited and found to be satisfactory. Six outworkers whose names were included in the returns were employed in districts outside the City and these were referred to the authorities concerned.

Offensive Trades

Applications were received during the year for consent to establish 3 new offensive trades, viz. : 2 fat extracting and 1 fat melting. Visits were made to the 70 trades in operation and notices were served in respect of defects found in this class of premises.

Employment Agencies

These premises are controlled by byelaws made under the Liverpool Corporation Act, 1927, and visits were made from time to time to ensure that the requirements of the byelaws are being carried out. There were 38 licensed employment agencies on the register at the end of the year.

Rag Flock and Other Filling Materials Act, 1951.

The administration of the above enactment is carried out by certain authorised sanitary inspectors.

The Act provides for the registration of premises in which specified filling materials are used in the manufacture of new bedding and upholstery, toys and baby carriages and for the annual licensing of manufacturers and storers of rag flock.

Sampling of Filling Materials

Powers are given to take samples of filling materials for the purpose of testing by a prescribed analyst and regulations have been laid down which govern the standard of cleanliness to which the materials must conform.

At the end of the year the number of premises licensed and registered was:—

Number licensed to manufacture Rag Flock	1
Number licensed to store Rag Flock	8
Number registered in which filling materials are used	86

Samples Taken

Thirty samples of filling materials were taken during the year, being, 14 rag flock, 3 coir fibre, 3 layered cotton felt, 2 each feathers, feathers and down and washed layered flock and one each woollen felt, hair, woollen flock and woollen mixture felt.

Offices and Workplaces

Considerable progress has been made during the past year in the rebuilding of war damaged commercial property and in the construction of new buildings of this character and it is pleasing to note that the promoters of these projects have considered carefully the comfort and welfare of personnel who will ultimately work in the premises, notwithstanding the absence of protective legislation which is enjoyed by factory and shop workers.

It has become common practice for many achitects and consultants to seek the views of the Public Health Department on environmental matters before the plans of new buildings, or alterations to existing premises, are submitted to the local authority for approval and this action has provided an opportunity to press for satisfactory structural arrangements and to advise on appropriate welfare facilities which are lacking in many old offices and workplaces.

Personal Cleanliness Facilities

It is not generally known that the provision of washing basins is not enforceable in offices and workplaces, and this applies to places where persons handle soiled clothes such as laundry and dry cleaning receiving depots and in importers' warehouses where dirty articles and materials may be stored. Facilities for personal cleanliness are regarded as a prime factor where public health is concerned and experience has shown that most employees require and appreciate the provision of washing accommodation, particularly when the mid-day meal is consumed on the premises or in neighbouring catering establishments. Bearing this in mind, much has been done by the sanitary inspectors to persuade employers to meet this demand and the result of their efforts in this direction has been most encouraging.

Heating of Offices and Workplaces

A noticeable feature in recent years has been the increase in the number of complaints from office workers of unsatisfactory heating and uncomfortable conditions in their places of employment. Many reasons can be advaned for this, but it has been noticed that complaints of this nature often arise in offices which have recently been reconditioned and modernised.

It is true that many rooms do lose their atmosphere of warmth and comfort when carpets and linoleum are replaced by plastic tiles and the papered walls are stripped and finished in a high gloss paint and this feeling is emphasised by the introduction of steel framed furniture and fittings on the removal of the cumbersome furnishings and book lined shelves which were so popular in the past.

These improvements are to be commended on hygienic grounds but in such cases it is advisable to secure an air temperature above the average in the winter months so as to reconcile this advantage with a comfortable working environment.

Administration of the Shops Act, 1950, and Young Persons (Employment) Act, 1938, Part I.

Future Legislation.

Gowers' Committee Report

Seven years have now passed since the report of the committee of enquiry under the chairmanship of Sir Ernest Arthur Gowers, G.B.E., K.C.B., on health, welfare and safety in non-industrial employment was published, and apart from a Private Members' Bill in December 1954, which failed to reach maturity, nothing has yet been produced, except for dealing with agricultural employment, to implement the recommendations of the Gowers' Committee.

Occupations Reviewed

The Committee considered in the main, those occupations which employed the greater part of the working population in the employments affected by their terms of reference, viz., shops and offices; hotels, restaurants and the catering industry generally; indoor and outdoor entertainment; rail and road transport; agriculture, fishing and shipping; and domestic employment.

Occupations Neglected

It is felt, however, that there is still a real danger of many occupations being omitted from the benefits of new legislation. Occupations which, by reason of the number of persons employed being comparatively small, may yet escape control. Certain persons working in hotels, institutions and launderettes not within the scope of the Factories Act, 1937; stable and kennel hands, and other occupations may be left outside unless careful consideration is given to their position by the legislature.

Employment in Launderettes

Workers in certain occupations, such as launderettes, can be employed excessive hours, deprived of a weekly half-holiday, proper meal intervals, and sanitary and other welfare arrangements. Complaints have been received in respect of these matters, but in the absence of appropriate legislation, no effective action could be taken.

Employment in Street Trading

Inspectors have observed, in connection with street trading, persons being employed long after the local cafes, shops and licensed premises have closed.

Administration and Enforcement.

Supervision

The local authority maintains constant supervision through its inspectorate, and for this purpose a group of sanitary inspectors carry out all the duties prescribed in the Shops Act, 1950, and the Young Persons' (Employment) Act, 1938, together with their duties under the Public Health Act, 1936, and Food and Drugs Act, and Food Byelaws, the Prevention of Damage by Pests Act, 1949 and the Pet Animals Act, 1951.

Scope of Duties

Allocation of Duties

The sanitary inspector is probably the most competent official to enforce the provisions contained in the Shops Act, 1950, because as a member of the public health department he has a wide vision of the many aspects of public welfare, and a special knowledge derived from his training and experience in many of the fields of public health service.

Avoiding Unnecessary Visits

In addition to this, the vesting of these duties in an inspector who is already dealing with the premises affected, obviates the undesirable arrangement whereby two or more officials are visiting or inspecting the same premises for closely associated purposes.

Staff

This policy has proved, and is still proving effective, and to give wider experience to personnel and to increase the inspection of shops, a number of assistant district sanitary inspectors have been trained to supplement periodically the work of those inspectors already carrying out these special duties.

Enforcement.

Weakness of Closing Provisions

Difficulties have been encountered in respect to the closing provisions requiring shops to be "closed for the serving of customers", and because there is no interpretation given to those words, many sales are made, and orders taken by shopkeepers who are deliberately breaking the law and indulging in unfair trade practices behind the almost impenetrable screen of "display".

Gowers' Committee Comment

The Gowers' Committee in dealing with "closing hours of shops" made this comment on the present shops law:—

> "In certain respects the law is neither observed nor enforceable and has been brought into contempt. The law tries overmuch to combine the incompatibles of compelling shops to shut and allowing people to buy."

The New Law

The time is therefore long overdue when these weaknesses should be removed. The new law must use plain words, properly defined, and it must be so framed that it can be readily understood by all those who have to obey and enforce it.

Co-operation of Shopkeepers

In respect to other aspects of enforcement, effective measures have been taken to deal with all infringements observed by the inspectors, and again it is pleasing to report that a great majority of shopkeepers are fully co-operative, and appreciative of help and advice when found to have committed an offence, often in ignorance.

Closing Hours—Evening

There is still no apparent change in the shopping practices of the public. It appears that the present closing times of shops, mostly 5.30 p.m. to 6 p.m., voluntarily adhered to by almost all shopkeepers, meets the need of the public.

"Late" Night

The Thursday "late" night is still maintained in a small number of shops, mainly in the Central Area, when they are kept open until 6.30 or 7.0 p.m. This practice has evidently proved useful, but has not spread as was feared by certain affected and interested bodies.

Half-day Closing

Shopkeepers generally are adhering to the half-day closing requirements.

Assistants' Half-holiday

Shop assistants are, with few exceptions, receiving their prescribed half-holidays. A number of cases have been reported by inspectors, where assistants were being employed after 1.30 p.m. In most cases the cause was an emergency, and the assistants were given a holiday on another day. In one case the assistants were detained for a while owing to the late delivery of meat supplies. The matter was brought to the notice of the employer, who gave the complaint his immediate attention.

Special Investigation

Employment of Young Persons

The hours of employment of young persons is an important aspect of the Shops Act, 1950, and the Young Persons (Employment) Act, 1938, and inspectors give careful attention where such young people are employed. The appropriate records are checked and where necessary the young persons are questioned as to their hours of employment and other conditions.

Night Employment of Young Persons

This is illustrated by the case arising from night visits by an inspector. He visited a coffee stall in the centre of the City about 10.30 p.m., and whilst dealing with other matters noticed a lad working in the stall. On being questioned the boy gave his age as 16 years and said he worked from about 8.30 p.m. to 2 a.m. the following morning. Enquiries at his home revealed that the lad was only 14 years of age and was still attending school. The details were forwarded to the Director of Education who prosecuted the employer on the evidence submitted by the shops inspector. The employer was convicted and fined.

Welfare arrangements.

General

The provisions of Section 38 of the Shops Act, 1950, which include such matters as lighting, heating, ventilation, washing facilities, sanitary conveniences and the facilities for the taking of meals, are given strict attention to ensure that the high standards already achieved in this City are maintained.

New Buildings

With the removal of controls on building and materials many shop premises are being altered and improved. This has resulted in many enquiries for information and advice by architects, builders and shopkeepers, and inspectors have usefully given time to this aspect of their duties.

Staff Sanitary Conveniences in Public Houses

The question of the provision of sanitary conveniences for public house employees has come to the fore during the year in connection with the alterations to existing houses and the building of new establishments. There has been a serious lack of attention by the various companies concerned in past years, and the absence of separate conveniences for these work people is a very unsatisfactory situation.

Legal Obligations

Ethical Obligations

Whilst these premises are shops for the purposes of the Shops Act, and are subject to all its provisions in the same manner as other shops, other considerations add to the importance of the need for separate sanitary conveniences for the men and women working behind the bar, and it is desirable that there should be no further delay in resolving the present difficulties or contentions.

Hairdressers and Barbers.

New Legislation

The Liverpool Corporation Act, 1955, has, among other things, gained the power necessary to secure the registration by the local authority of

persons carrying on the business of hairdresser or barber and the premises in which the business is conducted by them; and to make bye-laws concerning the cleanliness of premises registered and of the instruments, towels, materials and equipment used; and the cleanliness of persons employed in these premises.

Registration

Byelaws

Whilst the appointed day is not until May 1st, 1956, a great deal of work has been done in preparation. A detailed survey was carried out during the latter part of the year in review, and 529 known hairdressers' premises (including some where the business is done in dwelling houses) were inspected and the occupiers interviewed to ascertain their views, difficulties, and suggestions.

Preliminary Survey

Much valuable information has been obtained and will be of considerable importance in contributing to the smooth functioning and enforcement of these new provisions when they become operative.

Useful Information Gained

These powers have been sought because complaints are received from time to time regarding lack of cleanliness, particularly in respect of combs and brushes. There is also a widespread practice of hairdressing being carried out in dwelling houses, particularly ladies' hairdressing. The work is conducted in bedrooms or living rooms in unhygienic conditions and often without adequate and suitable equipment for the purpose. This type of hairdresser often has no conception of or regard to the standard of cleanliness which should be maintained, and may merely act as disseminators of disease and vermin.

Complaints of Unclean Conditions

Unsatisfactory Conditions in Dwelling Houses

It is appreciated that the standard maintained in the majority of hairdressers' shops is very satisfactory but these new provisions are intended to place responsibility for registration upon all persons practising this trade, and to enable the local authority to enforce standards of cleanliness in accordance with byelaws to be made under the Act.

Satisfactory Standards in Shops

Power to Enforce Cleanliness

Places of Entertainment.

Inspections of cinemas, theatres, dance halls and other places of entertainment are made both during the day and at night, for the purpose of ensuring the cleanliness of the auditoria, seats, sanitary conveniences, staff rooms, projection rooms, the maintenance of a suitable temperature and adequate ventilation.

Inspections

Maintenance

These inspections are frequent and thorough, but only in a few instances has it been necessary to report any defects or infringements. This reflects to the credit of the managers, for it is not without great difficulty that they maintain such a commendable standard particularly in certain localities where wilful damage, often very extensive, occurs practically every night.

Wilful Damage

Sale of Ice Cream and Sweets

The sale of ice cream, sweets, chocolates and fruit drinks forms an important service to patrons visiting places of entertainment. Therefore the provisions of the Food and Drugs Act and Food Byelaws are enforced, and it is reported that this service is generally conducted very satisfactorily.

Inspections

During the year, 556 evening visits were made in addition to inspections during the day, and 90 defects were found and remedied satisfactorily.

Pet Animals Act, 1951.

Licensing

Inspections

There were 76 licences issued to persons carrying on business as dealers in pets, and during the year, 182 visits were made to ensure that the provisions of this enactment are complied with satisfactorily.

Fire Precautions

The provisions of the Act relating to fire prevention are supervised by the Liverpool Fire Service who report to this department any matters requiring attention. Only minor matters have been reported in this respect, and were promptly and adequately dealt with by the persons concerned.

Rodent Control.

Prevention of Damage by Pests Act, 1949.

Duties of Local Authorities

The Prevention of Damage by Pests Act, 1949 requires every local authority to take such steps as may be necessary to secure, so far as practicable, that their district is kept free from rats and mice.

Active measures have been taken for many years in the City to ensure the destruction of rats and mice and to bring to the notice of the public the necessity of reducing the rodent population to the lowest possible dimensions.

The importance of maintaining adequate rodent control, therefore, is now generally accepted by the public, who recognise that a large rat and mouse population would be a potential danger to their health and well-being.

Due regard is given to the possibility of food contamination by rats and mice, and systematic routine survey was carried out of food factories and warehouses, retail food shops and catering establishments as a preventative measure. Immediate steps were taken to remedy any infestation found, however slight, by co-ordinated and concerted action by the rodent control staff and the occupier concerned.

Occupiers of buildings and lands are required by the Act to notify the local authority when rats or mice are living on or resorting thereto in substantial numbers.

Whilst the total number of rat infestations found during the year shows no appreciable reduction from recent years, and the number of mouse infestations shows a marked increase, the infestations for the most part were very minor in character. It is apparent that as the result of the vigorous campaign to eradicate these pests during the past years the public have become more "rodent conscious" and are readily availing themselves of the service provided by the department, even to the extent of reporting a stray rat or mouse.

Precautions Taken Against the Spread of Disease.

General Rodent Control Precautions.

Action Against Plague

Precautions are taken against the spread of plague, a disease which may be brought into the port by rats, and specimens of rats and mice collected in the City are sent to the Public Health Laboratory for examination. It is satisfactory to report that all rodents submitted during the year were found to be free from plague.

Precautions Against Weil's Disease

Rodents are carriers of the organism leptospira icterohaemorrhagiae, causing Weil's disease, and in order to safeguard not only the public but the sewer worker, who is required to enter the sewers where he may become infected by this disease, specimens of rats caught in sewers and buildings were submitted for examination. Therefore, although poisoning is the chief agent used for rat destruction in sewers in the City,

spot trapping has been employed in advance of poisoning treatments to obtain specimens for examination as a further precaution against the spread of infection.

During the year, 40 rats from sewers and buildings were submitted and 7 rats (5 from the sewers and 2 from buildings), i.e., 17·5 per cent, were found to be positive carriers of the organism. Immediate action was taken and the buildings, lands and sewers in the districts concerned were surveyed. The vertical block control system was applied to remedy the infestations found, which means that the destruction of rodents in the sewers, buildings and lands by approved treatment was carried out at one and the same time in order to destroy all the rats in the affected areas.

Systematic Survey.

Systematic Inspections

The rodent control staff examined 31,712 sites during the year in connection with systematic survey and investigation of complaints. A further 64,903 visits were made entailing operational work and re-examination of buildings and lands. Sanitary inspectors also made, in conjunction with other matters, 87,614 inspections under the Act.

Complaints relating to rats and mice to the total of 5,852, which is a substantial increase over previous years, were received and promptly investigated. All premises concerned were examined, together with adjacent buildings when infestation was found to exist, and appropriate action was taken with the minimum of delay.

The regular systematic survey work continually applied throughout the vulnerable areas of the City is of primary importance for the detection of rodent infestation before it is allowed to develop to serious proportions, and has been one of the major reasons for Liverpool being in the forefront of rodent control.

Rodent Infestation.

Infestations—Buildings and Lands.

Buildings and Lands

During the year, 31,712 buildings and lands were examined and 5,260 were found to be infested, details of which are shown in the statistical appendix.

The principal sites affected were warehouses and industrial buildings within the dockside wards, whilst the central area continues to show a marked decrease in rodent infestation as the result of the intensified drive in recent years by block control methods. It is also reported that the degree of infestation in the vulnerable areas continues to show an appreciable reduction.

Transportation in Goods

There is evidence of the transportation of rats and mice from time to time in goods delivered to premises. This source of infestation would account for ship rats being found in buildings some distance away from dockside wards and also be the cause of the reinfestation by rats and mice of buildings successfully cleared of rodents, particularly when the circumjacent sites are free from infestation. This aspect of rodent infestation is receiving the serious attention of the department. In all such cases, as a preventative measure, enquiries were made relating to the consignor of the goods so that appropriate action could be taken at the source of infestation.

The middle belt of the City has been subject to infestations of minor degree, these being for the most part due to rats escaping from the sewers through defects in the drainage systems, in search of food waste thrown into yards and public passages. 1,045 references were forwarded to the sanitary inspectors for inspection of drains on such sites to further the investigation into the source of rat infestation. 639 related to dwellinghouses and 406 to business premises. Defective drains were subsequently reported in 292 and 196 cases respectively, and the necessary action was taken to remedy the defects found.

Infestation of Ditches

Infestations in the outer belt of the City, generally of very minor degree, were mainly due to rats harbouring in their natural surroundings, such as banks of brooks and ditches, and embankments, and attracted to nearby dwellinghouses in search of food, the food often being supplied, quite unwittingly, by occupiers of dwellings when throwing bread into the gardens for birds. Furthermore, rats and mice disturbed from their natural harbourage on land developed for new housing estates in some cases entered the houses during and after construction. Another attraction to rodents exists on sites where poultry are kept, and temporary harbourage in the form of compost heaps in gardens is often provided unintentionally by occupiers.

Dwelling-houses

Although it is noted that the presence of rats was reported in connection with a large number of dwellinghouses, the majority were small external infestations. The limited supply of food and facilities for harbourage in such places available for rats necessitates their taking a wide range of movement in search of food, thereby increasing the number of sites showing traces of the pests without concentrated areas of infestation. The prompt action by occupiers in reporting the presence of rodents to the department enabled the district rodent operatives to take the necessary action before infestation was allowed to develop to serious proportions.

A report of the conditions of infestation in each case was made, indicating the treatment required to remedy, together with any reasonable recommendations for preventing a recurrence of infestation.

Details of infestations and disinfestations are shown in the statistical appendix.

Rodent Disinfestation.

Disinfestation of buildings and lands.

Methods of Disinfestation

The aim of the rodent control section is to destroy all rats and mice within an area of infestation within the shortest possible time, preferably within three or four weeks from the commencement of the treatment. By these methods the danger of infestation being maintained by the invasion of rodents from neighbouring buildings and lands, and the natural increase of rodents by breeding, is reduced to a minimum.

The treatment to remedy infestation was prescribed and applied in accordance with the approved method of rodent destruction. All infested sites within each area were dealt with at one and the same time to a pre-arranged timetable under the block system of control. Whilst disinfestation was proceeding, the non-infested sites bounding those under treatment were periodically re-examined as a precautionary measure.

Generally it is found that occupiers readily agree to the recommendations of the department, but in one case it was necessary to serve a notice under the Act to obtain the desired result. It has not been necessary to institute proceedings for non-compliance under the Act.

During the year, 5,505 buildings and lands were disinfested. Infestations are not considered remedied until no further trace of rodents is found during a period of three to four weeks after treatment has been completed.

Dwelling-houses

The practice of providing free assistance to occupiers of private dwellings has been continued during the year, and the work in this connection has considerably increased, particularly with regard to complaints of mice in all districts of the City.

Business Premises

Owners or occupiers of buildings or lands other than private dwellings, who desire the department's assistance for the destruction of rats or mice, are required to reimburse the local authority for the expenditure incurred. The demand for such assistance is still increasing and 1,830 requests were received during the year.

Many occupiers, in addition, request the department to examine their premises monthly in order to maintain constant and expert supervision so that the slightest indication of any rodent activity can be speedily and skillfully dealt with, and a charge is also made for this service.

Methods of Destruction.

Buildings and Lands—Poisoning.

Method of Destruction

The principal method employed for rat and mouse destruction is by the use of both quick and slow acting poisons. The quick acting poisons used are zinc phosphide and arsenious oxide (for both species of rats and mice) and Antu (alpha naphthyl thiourea) for the common rat. The use of these poisons for rats and, to a lesser degree, for mice necessitates pre-baiting the site undergoing treatment with unpoisoned food in the form of token bait for several days before the poison is applied. In this way rodents are conditioned to take a lethal amount of poison bait.

Red squill poison, principally used in past years to remedy slight common rat infestation in dwellinghouses by reason of its comparative safety, has now been superseded, on account of its unreliability of toxicity, by the use of Warfarin.

Modern science has produced for rodent destruction a slow acting poison known as Warfarin, a blood anti-coagulant which, when ingested

regularly in small doses for a period of days, causes a fatal haemorrhage in rats and mice. The major advantages of this slow acting poison are the low concentration of poison required to be effective, which induces little or no shyness in rodents and enables it to be used without the need for pre-baiting with unpoisoned bait, and its comparative safety for application in dwellinghouses and schools.

However, certain precautions are necessary when laying any type of poison bait, and where it would be dangerous to leave the poison unprotected, containers accessible only to rodents are used as a safety measure.

Of the 5,137 infestations remedied by the department during the year, 5,127 were cleared by the use of poisons and the remaining 10 were remedied by trapping only. Trapping is generally used for very slight infestations or as a secondary treatment to deal with a residual population of two or three rats or mice which have survived the poisoning treatment. Break-back traps of the treadle type are used for this method of destruction, and to a lesser extent sticky trays where conditions are favourable for this form of treatment.

The remaining 657 infestations were remedied either by the occupiers applying approved treatment prescribed and supervised by the rodent control inspectors or by drainage systems being repaired under the supervision of the sanitary inspectors.

Calculated kill of rats.

Estimated Number of Rats Killed

It is estimated, using the appropriate formula for calculating the kill, that at least 20,139 rats in buildings and on lands were destroyed during the year as a result of poisoning treatment, and 3,087 were collected during operations. 278 rats were caught in traps in buildings and on lands. Thus the total number of rats destroyed during operations in surface infestations was estimated to be 20,417.

The species of rat collected were 1,456 rattus norvegicus ("brown" or "common" rat) and 1,909 rattus rattus ("black" or "ship" rat). A percentage of the rodents collected, 353 rats and 11 mice, were sent to the Public Health Laboratory for examination and the remainder burnt.

Although there is no reliable formula available for calculating the kill in the use of poison in relation to mice, there can be no doubt that the number of mice destroyed by this method is appreciable when taking into account the amount of poison bait consumed, namely, 11,063 ounces. 2,216 mice were collected as a result of poisoning and trapping operations. **Destruction of Mice**

Rat Destruction in Sewers.

In order to maintain a high standard of rodent control in the City, it is essential for surface and sewer rodent control to be closely co-ordinated, therefore it has been necessary to maintain a constant watch on the breeding and migration of rats through sewers and drains. Rats can use sewers as the means of traverse from one building to another through defects in the drainage systems. **Sewer Treatment**

With a view to eliminating infestations of buildings and lands having their source from the sewers, maintenance treatments have therefore been applied in the dockside wards and in the middle belt of the City during the year with very satisfactory results as indicated in the tables.

There is a total of 25,717 sewer manholes in the City, and the second maintenance treatment during the year showed that only 2,910 manholes had pre-bait takes compared with 9,329 during the initial treatment in the year 1953, which is a reduction of 68·8 per cent and is a clear indication that systematic maintenance treatment for the destruction of rats in sewers is having its good effect.

In order to observe the strictest economy in the work without impairing adequate rat destruction, revisits were not made to manholes after treatment had been applied for the purpose of recording poison takes to estimate the kill.

The summary of treatments applied by the department clearly indicates the reduction of the rat population in the City sewers, details of which are shown in the statistical appendix.

In the outer belt of the City, where the sewers had been previously found to have little or no rat infestation, and in the divisions in which sewers had been disinfested by maintenance treatments, the annual test baiting was applied as a precautionary measure to discover if there had

been any change or migration of the rat population into these areas, and details are shown in the statistical appendix. Where evidence of rats was found during test baiting, treatments to remedy the localised infestations were subsequently applied.

It will be seen from the tables that whereas manholes treated reduced in number, the number of manholes test-baited increased, thereby indicating that the rat population in sewers has been greatly reduced.

Preventative Measures.

Sanitary Inspectors Preventative Measures

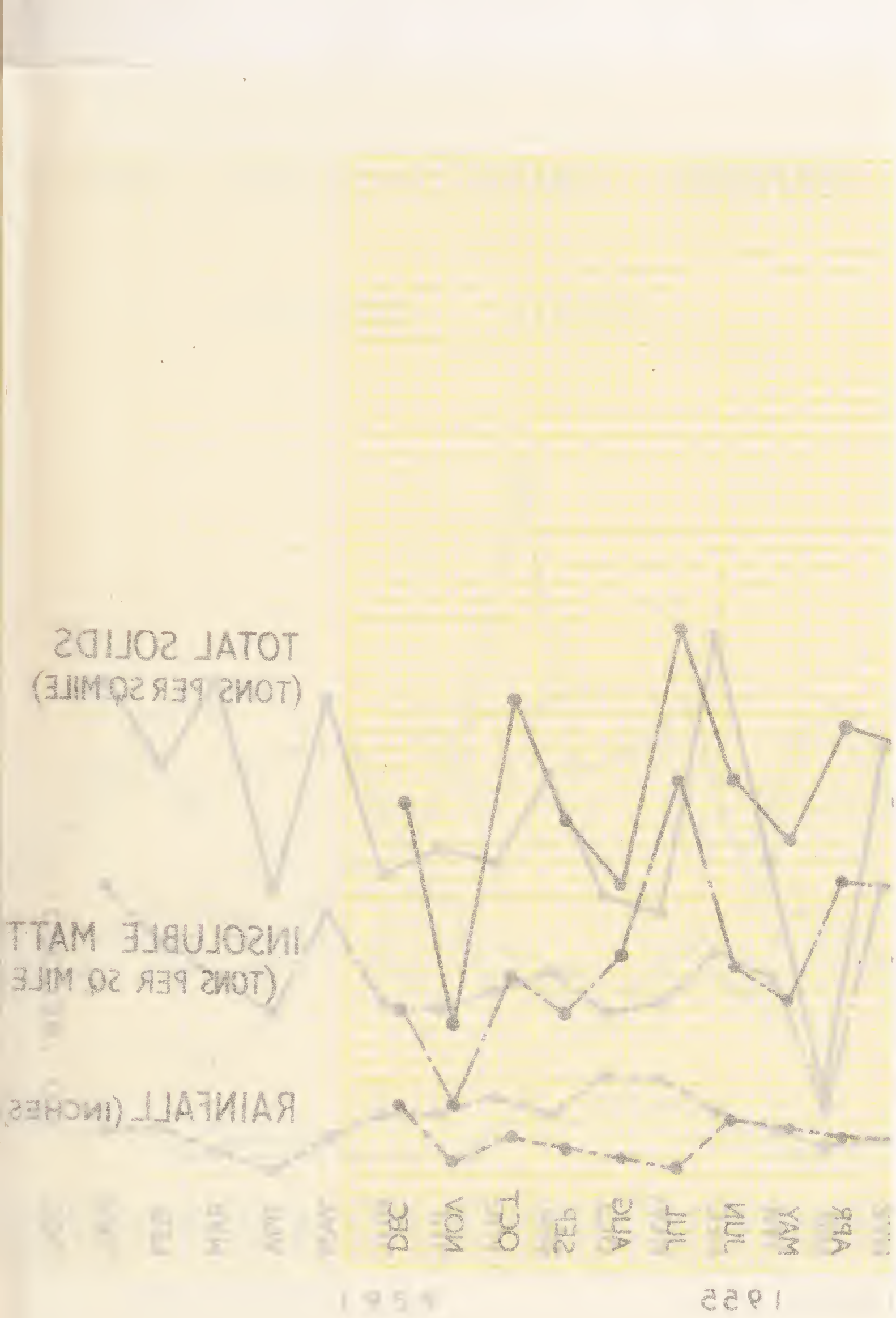
Co-ordinated action by the sanitary inspectors and the rodent control staff was taken where required in relation to preventative measures. Conditions likely to contribute to infestation were at once brought to the notice of the owner or occupier of the building or land.

Works of Proofing

Preventive measures and works of proofing were carried out during or immediately following disinfestation as required. The immediate proofing carried out included the provision of suitable containers with tight-fitting lids for the storage of waste food at cafes and other food premises in order to remove a readily accessible food supply for both rats and mice and thereby assist the work of rodent destruction.

The more permanent measures executed were the repair of defective drains, the fixing of metal plates to the base of doors, providing windows and ventilators in external walls and on roofs with small mesh wire guards, bricking up openings in walls and around waste pipes, overflows and service pipes, etc. (thus preventing means of ingress for rodents), and the abolition of unnecessary harbourage.

Occupiers of premises generally showed readiness to comply with suggestions and good advice given to them by the rodent control staff, but where they failed to co-operate, statutory action was taken by the sanitary inspectors, and 53 notices were served under the Act. It is pleasing to note that during the year, no legal proceedings had to be instituted.


TOTAL SOLIDS
(TONS PER SQ MILE)
INSOLUBLE MATT
(TONS PER SQ MILE
RAINFALL (INCHES)
DEC
NOV
OCT
SEP
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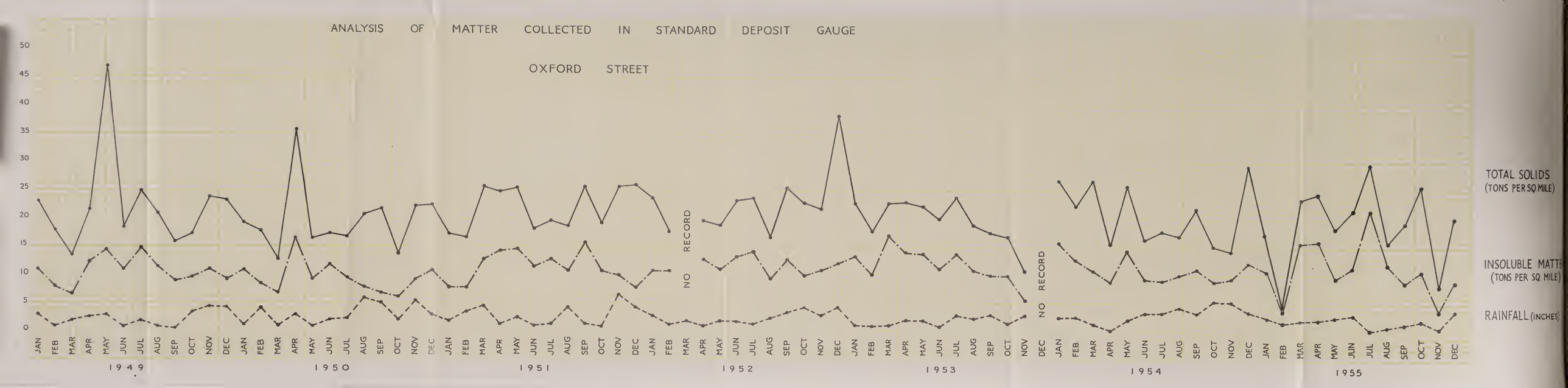
JUL
JUN
MAY
APR
1955


ANALYSIS OF MATTER COLLECTED IN STANDARD DEPOSIT GAUGE
OXFORD STREET
50
45
40
35
30
25
20
15
10
5
0
NO RECORD
NO RECORD
TOTAL SOLIDS (TONS PER SQ. MILE)
INSOLUBLE MATT
(TONS PER SQ. MILE)
RAINFALL (INCHES)
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1949
1950
1951
1952
1953
1954
1955

ATMOSPHERIC POLLUTION.

General

Smoke is a soothing word and there is something which kindles a gleam of warmth and a certain degree of sentiment when it is mentioned. Poets have talked about smoke curling lazily over tree tops, travellers over long distances, wearied by their journeys, hasten when in the distance the welcome haze of smoke is seen indicating warmth, good cheer, food and shelter.

Then there are the traditional smokes of Old England, charcoal burning, and the many aromas in smoke from roasting venison or other delectable carcases. This traditional background which has impeded the progress in smoke abatement is small, however, compared to the deliberate propaganda associated with smoke, particularly in the industrial belt of Lancashire by connecting it with prosperity.

Association of Smoke with Prosperity

When there have been strikes or industrial upheavals, and the closing down of factories or shipping, then the relief of the public has been exemplified by press photographs of factory chimneys belching forth smoke, smoky railway trains on the move and fleets of little tugs aroused from momentary stoppage breasting the tide by smoke pouring from proportionately large funnels.

There is, however, no doubt that the kindly warming propaganda aspect of the words smoke and coal has been removed by the never ending drive carried on by the Department generally during the last few years. The drive has taken the form of an operation in three spheres consisting of: (i) River, (ii) Industrial belt, and (iii) Suburbs.

Shipping

The river provides many complications and the major one is concerned with smoke abatement from the small vessel. The large liners, oil-fired, mechanically controlled, present little difficulty, smoke only following careless supervision and is immediately detected and obviated by telephonic communication.

The busy little tug and the hard working dredger, however, require different treatment. Long periods of observation from quayside and dock walls in icy, wintry conditions, have established that the progress of smoke abatement is extremely slow in this operational sphere. Fre-

quent visits have been made to the stokeholds, stokers admonished and given technical advice, conversion of equipment recommended wherever possible, and slowly improvements are occurring in the smog over the Mersey.

Warning to Offenders

Special warning letters were sent to all offenders advising them of the nuisance observed and requesting co-operation in order to minimise the excessive smoke emissions.

Legal Proceedings

During the year it was found necessary to institute legal proceedings under Section 472, Liverpool Corporation Act, 1921 following excessive black smoke emissions from four small craft, the case against all the defendants being proved and fines imposed.

Co-operation by Shipping Companies

Subsequent meetings with prominent members of shipping companies have resulted in a marked improvement in the smoke emission from ships using the river daily, and it is hoped that this improvement will be maintained.

The problems of the industrial belt and the suburbs have been investigated during the year by many weeks of observations from high places in the City and from a plane. Persistent offenders have been observed and preliminary steps taken by statutory notices being served.

Progress

Steadily the work has gone on throughout the year and large-scale conversions of equipment have been mounting month by month, numbering 20 to 30 in the latter half of the year.

Proposed Smokeless Area

The necessary steps have been taken to establish the first smokeless area and the Liverpool Corporation Act, 1955, was given Royal Assent on the 27th July, 1955.

The proposed area has been surveyed and the premises not completely converted to smokeless combustion are now under concentrated visitation to secure these alterations.

The operative date has now been fixed for 1st October, 1957. It is anticipated, however, that the present large-scale improvements will ensure a high percentage of smokelessness in the City before that date.

Public Buildings

The local authority are also giving careful consideration to the installation of central heating or other methods in their public buildings.

One of the most difficult problems in the City is the emission of smoke from nationalised industries and Crown property. Power stations and hospitals have caused much concern, and progress has continued to be extremely slow.

Further steps are being considered to expedite the work of conversion and education in these troublesome premises.

Guilty Chimneys

The scale of intensity of the atmospheric pollution problem in this City can be measured by the statistics available. It is estimated that there are approximately 250 tons per square mile of deposited impurities falling on to the City per annum and, in addition, there is also a high percentage of sulphur dioxide polluting the atmosphere. These impurities represent only the first stage in the multiple waste involved; the second stage is obstruction of sunlight and daylight, and the third stage is the harm done by polluting matter, tarry soot, acid and grit which gives rise to a disfiguring and corroding deposit.

Stokers' Conditions

Investigations have indicated the need for the managements of many industrial concerns in the City to interest themselves in the stokeholes and boiler houses and the environmental conditions of the stokers. The five d's: dirt, darkness, dampness, dilapidation and danger are all too common. Many have not been provided with gauges or instruments to abate smoke, and often, if provided, due to mechanical defects, are not being used; in many cases they are beyond the comprehension of the stokers.

Exempted Classes. (The Major Problem)

Industrial establishments, however, have not provided the major problems which are associated with the exempted establishment, or those classes which, due to their character, are protected by technical complication and administrative difficulties, preventing legal procedure, and these include nationalised industries and Crown properties.

Domestic Problem

Photographs taken during the summer months have revealed this year vast areas in the City, mainly residential, free from any smoke pollution at all. There has been no need for occupiers to light a fire in the warm weather, and large numbers of people are now working most of the day. Further, the desire of people to get out into the sun, has caused the complete cessation of pollution from domestic grates.

However, there has been no reduction in the pollution figures recorded this year compared with last year. There are still approximately 20 tons of rubbish falling on the City per square mile per month—a dismal record during a year characterised by a glorious summer.

Housewives' Problem

At one time "black Monday" was considered in an abstract way as associated with reluctance of people to return to the commencement of dull routine work. Today "black Monday" literally bears that description, for this day commences the battle of the wash tub when countless thousands of housewives are engaged in waging war on dirty collars, begrimed shirts, soiled dresses and household linen.

British Empire Cancer Campaign

During the past few years the department has been co-operating with the British Empire Cancer Campaign to test the effect of atmospheric pollution on lung cancer. During the year a preliminary report was published which showed marked differences in the cancer rates of Liverpool and the rural areas of North Wales.

The statistical picture is this: the estimated annual lung cancer mortality rate of men between 45 and 74 years of age in the rural areas of North Wales rises sharply from 14 per 100,000 for non-smokers to 363 per 100,000 for heavy smokers (defined as men who have averaged over 250 cigarettes a week for any period of ten years). The corresponding toll among pipe smokers is 41 per 100,000. Similar figures apply to mixed rural and urban areas.

But in Liverpool, the estimated death rate among non-smokers is 131 per 100,000 and the increase in the rate among smokers—up to 394 per 100,000—is relatively less than in the country.

Effects of Atmospheric Pollution

The benzpyrene figure in Liverpool is eight to eleven times as great as in the rural localities examined, a ratio which corresponds with the estimated mortality ratio among non-smokers living in those areas.

If these views are substantiated by similar research now being conducted by the Medical Research Council and other bodies, it will emerge that a non-smoker in Liverpool (or, of course, in any other large urban area) is nine times more likely to contract cancer of the lung than a non-smoker in a rural area. The differences are hardly significant in the heavy smokers in both areas.

The implications have an inescapable significance for the Government —particularly in relation to the Clean Air Bill. The Bill is still enshrouded with the smog of exemptions for certain classes of industry, and offenders are provided with almost impregnable defences in exemptions that smoke was caused during the lighting up, using unsuitable fuel. The outmoded defence concerning best practicable means are being adopted still promulgated in this new legislation arising as a result of emergency.

Clean Air Bill

It may not be possible to remove the problem completely for many years but it should be possible to have smokeless skies over the City during next summer. At that time of the year the problem of the domestic grate decreases and therefore only industry, shipping and other services have to "put their houses in order".

Liverpool's Special Problems.

During the year the interest of the inhabitants of the City has been turned to the river front where the problem of the atmospheric pollution from the three chimneys which tower above the surrounding docks has resulted in several meetings between research engineers employed by the Central Electricity Authority and technical officers of the department. With a view to reaching a satisfactory solution to this problem it has been arranged for special reports to be submitted to the Health Committee at frequent intervals showing the progress made by the research department of the Central Electricity Authority in order that in the near future this nuisance will be mitigated.

Clarence Dock Power Station

The furnaces of Clarence Dock Power Station consume on the average 3,000 tons of coal per day though in special circumstances, such as a sudden rise in demand, the coal consumption may be as high as 4,000 tons a day. When it is remembered that for the efficient burning of this fuel approximately 15 lb. of air is required to every lb. of fuel burnt, it can be realised the enormous quantity of gases being emitted from the three chimneys.

Fuel Consumption

The large quantity of fuel being consumed naturally gives a large amount of ash, this of course varies greatly according to the amount of fuel being burnt and the quality of the fuel. On a recent week-end, at approximately 35 per cent ash, a total of 1,400 tons of ash was removed from the station.

Ash Removal

It may be necessary for the authority to spend considerable sums of money in order to improve upon the conditions whilst using the existing equipment in order to meet the demands of the department.

Meanwhile, everything is being done to keep the chimney emission down to the minimum.

Difficulties

Summarising the difficulties, they are concerned mainly with existing conditions relative to—

(*a*) fuel; (*b*) equipment; and (*c*) load.

If we can reduce the smoke from these chimneys together with Crown properties and other nationalised industries, we may guarantee next summer an atmosphere comparatively free from smoke.

Atmospheric Polution Measurement.

Standard Deposit Gauge

During the year the amount of deposited impurities or "soot fall" in tons per square mile has been measured by three standard deposit gauges which are strategically sited in order to obtain a reasonably accurate picture of the impurities which are released into the atmosphere daily due to inefficient combustion of bituminous fuel in the home and industry.

Unfortunately these three gauges in themselves are insufficient to give a full and complete illustration of the average pollution deposited over the whole of the City.

Co-operation with the Central Electricity Authority

However, through the kind co-operation of the Divisional Controller of the North West Division Central Electricity Authority, figures are made available to the department of results obtained from eight standard deposit gauges thus completing a ring of gauges collecting important scientific data to enable the black spots to be plotted on graphs.

Owen Automatic Smoke Filter

The suspended impurities in the atmosphere are measured hour by hour, day and night by the Owen Automatic Smoke Filter.

During the year, this instrument, which had been in use at Belmont Road, was moved to Garston in order to obtain information on a five-yearly cycle (the instrument was last sited at Garston in 1950/51). The results thereby indicate the degree of improvement obtained. The comparative results obtained are readily seen on the graph.

The term "suspended matter" is applied to particles of soot, etc., which are collected through a standard intake then passed through a white filter paper, the amount of "suspended matter" collected is estimated by comparing the darkness of the stain with a calibrated "scale of shades". The unit used for expressing the concentration of smoke is milligrams of smoke per hundred cubic metres of air. **Suspended Matter**

From the records obtained during the year, it was noted that whilst sited at Belmont Road the minimum month was June which recorded 1·70 milligrams per 100 cubic metres and March was the maximum with 9·74 milligrams. The instrument was moved to Garston in mid-June and the minimum concentration was in August with 4·4 milligrams, and during a period of "smog" in November, the maximum was 16·6 milligrams.

Sulphur Gas Pollution.

During the year a special louvred box was sited at 5, Princes Road on a single storey flat roof of the premises in order to obtain a comparative measure of the concentration of sulphur dioxide in the air, by exposing in the louvred box a small cylinder or "candle" coated with lead peroxide. **Lead Peroxide Method**

The sulphur dioxide in the atmosphere reacts with the coating to form lead sulphate, the amount being determined by analysis after exposure for a month.

Co-operation with the Department of Scientific and Industrial Research in atmospheric pollution recording has continued throughout the year and results obtained by the methods described have been forwarded each month. **Department of Scientific and Industrial Research**

Smoke Abatement.

During the year the smoke abatement inspectors have continued to advise and demonstrate to owners, engineers and firemen how to combat the smoke emission by increasing the efficiency of the plant.

In order to ensure that the firemen know the correct method to be used the inspector has on occasion handled the shovel and demonstrated the manner which must be adopted when hand firing.

The district sanitary inspectors have assisted by routine observations on their own district.

Observations on Smoke Pollution from the Air

During June a special investigation was carried out by the department in connection with a complaint of smoke pollution seriously interfering with visual flying from Speke Airport.

In order to obtain first-hand knowledge special flights were arranged and these clearly indicated that on certain days, according to the wind direction, small aircraft, without radar equipment, are unable to land or take off.

During one of these flights, after take off, the plane circled the airport and a slight smoke emission was seen coming from factory premises on the Speke estate, this being very slight and of short duration.

After climbing to a height of 5,000 ft. the plane turned to fly over the course of the river, on the left Bromborough Power Station was observed and it was seen that no excessive smoke was polluting the atmosphere, looking to the right the whole of the City of Liverpool was visible except for the area West of Clarence Dock Power Station, the residential area was almost completely free from smoke pollution, the day was fine and visibility excellent.

At a point due South of Clarence Dock Power Station, the chimneys of which were emitting a fairly heavy grey smoke, especially from the centre chimney, the pilot turned the plane to fly directly into the smoke and we decreased in height until the plane was completely enshrouded in the smoke plume, visibility was nil and it was impossible to see the ground or any buildings during this period.

Physical reaction clearly indicated that the emission from the power station was definitely smoke and not, as had been suggested by some people, water vapour.

Further observations revealed to the North end of the City in the Vauxhall Road area, a number of industrial premises, the chimneys of which were emitting black smoke, subsequent ground observations resulted in abatement notices being issued.

An excellent view was obtained of shipping on the river and it was seen that tugs and small coastal craft were the main offenders whilst the larger vessels were emitting comparatively little smoke.

Summary of Air Observation

As a result of these flights in aircraft the cause of atmospheric pollution could be summarised as follows :—

(1) Industrial chimneys with particular reference to Clarence Dock Power Station.

(2) Shipping on the river, especially tugs, dredgers and small coastal craft.

(3) Commercial firms, etc.

(4) Domestic chimneys in the residential areas.

Routine Inspection

In addition to the special observations, 163 complaints were received and 3,159 routine observations made, resulting in over 50 statutory notices being issued on the persistent offenders.

Advisory Visits

It is gratifying to record that as a direct result of visits made by the inspectors many new installations, which are capable of efficient smokeless combustion, have been ordered and a number installed, and this will result in a noticeable improvement during the coming year.

Step-grade Incinerator

The increasing difficulty in disposal of trade refuse has resulted in many firms burning waste paper and similar rubbish in unsatisfactory incinerators, causing smoke nuisances and the inspectors are now advising the installation of the step-grate incinerator, which is constructed so that an adequate supply of air is maintained in the combustion chamber thereby ensuring satisfactory smokeless combustion.

Cause of Smoke.

Hand firing

Smoke is caused by inefficient combustion and it consists of soot, tar, dust and grit, impregnated with corrosive acids of sulphur.

In the majority of cases the cause was found to be due to carelessness in hand-firing, or lack of scientific knowledge in the correct and efficient utilisation of the available fuel.

Railway Engines

Smoke from railway locomotives is at present governed by the Railway Clauses Consolidation Act, 1845 (Section 114) and the Regulation of Railways Act, 1868 (Section 19). These provide in effect that every railway engine shall be constructed so as to consume its own smoke.

Railway locomotives are responsible for over one-seventh of all the smoke discharged into the atmosphere, most of this smoke is produced by shunting engines; during the year a number of complaints have been dealt with by the department.

Coal Sidings

Special reference must be made to the nuisance caused by railway engines whilst in the sidings at Edge Hill Motive Power Depot adjacent to Tiverton Street.

The close proximity of dwelling houses to this siding has caused the occupiers to complain repeatedly of excessive smoke emissions from the railway engines whilst coaling, watering or ash-dropping.

It is pleasing to report that following intimation of the nuisance to the British Transport Commission an immediate remedy was effected, due no doubt to disciplinary action being taken by the responsible officials.

Modern Diesel Traction

The only present alternative to electrification, other than the straight forward change to oil firing of existing locomotives is to replace coal fired engines by diesel or gas turbines.

A number of diesel engines are being used for shunting purposes at the marshalling yards situated within the City.

During December a main line diesel electric power unit for service into a Liverpool terminus was on trial runs and no doubt this is the first step to a new era in railway propulsion.

Motor Vehicle Exhaust

Pollution of the atmosphere by motor vehicles has increased with the growth of motor transport.

The change from the smokeless electric tram to the diesel omnibus in recent years has been particularly significant.

The exhaust gases include carbon monoxide, some sulphur dioxide and other gases including oxides of nitrogen, hydrocarbons and aldehydes, and more research is required to determine whether the carbon monoxide from vehicle exhausts reaches harmful concentration in dense traffic areas.

During the year a team of inspectors have been engaged on a special investigation connected with the pollution of the atmosphere from motor vehicle exhausts. Further observations and measurement of the atmosphere with the aid of scientific instruments are still to be carried out. **Special Investigation**

Following complaints of black smoke emissions from a diesel compressor, a subsequent visit and observation of the unit, followed by advice to the responsible official resulted in immediate improvement. Diesel smoke is unnecessary if they are properly maintained, serviced and driven, no smoke is emitted except when starting from cold. **Diesel Compressor**

Effects of Smoke.

The first serious charge that can be brought against smoke pollution is that under certain atmospheric conditions it assists literally in the destruction of life itself. The deleterious effects of smoke can be seen at their worst when fog and frost together overtake the City during winter months, permitting a high concentration of grit, tar and sulphur, the effects of this combination is to increase the incidence and mortality from pneumonia and bronchitis both during the incidence and for weeks afterwards.

The importance of the problem of the weathering of building stones is coming to be widely recognised, and the public is becoming deeply conscious of its responsibilities in respect of the protection of buildings and monuments of historical or artistic interest. **Property Damaged by Smoke**

The tarry matter present in soot causes it to adhere tenaciously to any material with which it comes into contact. With many sandstones the soot fills the surface pores and the stone becomes uniformly darkened as can be easily seen when examining many of our public buildings, for example, St. George's Hall, Art Gallery and Picton Hall.

In addition to the darkening effect, soot also contributes to chemical decay, because it carries with it free acids and soluble salts, which it brings into contact with the stone.

Remedies.

Methods to abolish smoke in industry include the modernisation of coal burning plants and increasing all round efficiency in fuel utilisation, and use of smokeless fuels. **Industry**

Offenders have been advised that training and improved status for stokers is necessary to obtain the right type of firemen capable of operating industrial plants smokelessly.

Residential Areas

In the domestic field smokeless fuels such as coke, gas and electricity have resulted in considerable reduction in atmospheric pollution. The replacement of existing appliances raised a number of problems, particularly in older premises and it is important that modern appliances for the burning of solid smokeless fuels should be correctly installed.

Shipping. Smoke Eliminator Door

Following the installation of the smoke eliminator fire doors on a vessel belonging to a large dredging fleet employed daily on the river, the inspectors, in collaboration with the owners' representative, made trips on the vessel and also on a sister ship without the special door.

The result of this special investigation revealed that at least 75 per cent improvement could be expected from vessels fitted with this door.

Many shipping companies were advised by letter of the satisfactory results of the experiment and advised to have all the coal fired vessels fitted with these doors. It is pleasing to report that orders have been given for the fixing of the door, in some cases this has already been done.

The recent reduction in smoke pollution from river craft is undoubtedly directly connected with the successful prosecutions.

Prior Approval

All plans and specifications of new or reconstructed fuel using plants are now subject to approval by the City Council, in the same way that building plans are approved and this ensures that only plants capable of smokeless and efficient combustion will be installed.

Many firms have requested help and advice and voluntarily submitted their plans for approval, prior to the Act being passed.

Smokeless Areas

The modern approach to reduce atmospheric pollution is the provision of smoke control areas. With this in mind a preliminary survey was carried out in 1953 of the area bounded by Chapel Street, Tithebarn Street, Hatton Garden, Manchester Street, Whitechapel, Lord Street, James Street and the Pier Head.

This central area is the most important part of the City, and we all know that the City is judged by citizens and visitors alike by the standard shown in the City centre. Thus, the first smokeless area will be the heart of the City, the focal point of civic consciousness and pride.

Use of Map of Area

It covers approximately 100 acres and includes offices, warehouses, shops, cafes, restaurants, and public houses, etc., with only one industrial concern, although a number of industrial type boilers are included in the larger premises.

As a result of the first survey it was found that of the total of 1,933 premises, 1,325 or nearly 70 per cent were already smokeless.

The total fuel burning appliances in the area numbered 9,627, of these, 2,320 are open fires burning 4,597 tons of bituminous coal per annum.

Replacement of these open fires with suitable smokeless fuel appliances has been progressing favourably. A follow-up survey revealed that 61 open fires have been abolished and replaced with either solid smokeless fuel appliances, gas or electricity.

In many premises now converted to solid smokeless fuel the inspectors have advised the occupiers to provide gas pokers for igition purposes, in some premises coal gas is not readily available, this is overcome by the provision of portable bottled gas.

Conclusion

Smoke pollutes the atmosphere with acrid poisonous compounds, tarry vapours and sooty particles which may serve as carriers of the obnoxious products of human fatigue, which irritate the eyes, nose and lungs thus increasing the susceptibility of gastro-intestinal, pulmonary and naso-pharyngeal disorders, increases fatigue and tends to hasten premature decay. There can be no doubt that smoke and noxious vapours have a highly injurious effect on vegetation.

Thus it can be seen that atmospheric pollution is one of the greatest evils that menaces our national health.

Fortunately a break in the smog cloud which hovers over our City can be seen, due in no small measure to the ever increasing interest being taken by all members of the community in the prevention of atmospheric pollution by smoke control in industry, shops, offices, hotels and in the home.

Special efforts were made to prevent heavy smoke emissions during the incidence of smog, all inspectors, briefed in anti-smog action, toured the City to advise the offenders of the danger of permitting heavy smoke emissions during these periods, and it is pleasing to record, with the co-operation of all coal users, the effect of the smog was mitigated.

Elderly people and sufferers from chronic chest or heart conditions were advised to keep indoors and rest as much as possible in order to minimise the harmful effects of smog.

SUPERVISION OF FOOD SUPPLY.

TABLE I.

NUMBER OF VISITS PAID TO PREMISES BY FOOD INSPECTORS.

Slaughter-houses (Private).	Butchers' shops.	Fruit shops.	Fish shops.	Food factories.	Provision premises.	Ice Cream premises.	Knackers' yards.	Dairies, Milk shops.	Piggeries.	Food hawkers.	Total visits.
190	8,108	6,035	10,188	2,611	1,299	1,480	62	3,302	405	1,257	34,937

Private Slaughter-houses.

There are three private slaughterhouses in the City at which 9,877 pigs, 25 cattle, 26 calves, and 5 sheep were slaughtered. All carcases and offals were inspected before sale for human consumption.

Stanley Abattoir.

City Abattoir Slaughtering

464,360 animals were slaughtered at Stanley Abattoir, details of which are set out in the following table.

TABLE II.

Bulls.	Bullocks.	Cows.	Heifers.	Calves.	Sheep and Lambs.	Pigs.
1,310	21,944	38,880	1,366	33,802	272,075	94,983

Staff

The efficient inspection of all carcases and offals at the time of laughter has again called for intensive effort on the part of the nspectorial staff engaged on meat inspection which consists of a chief nspector, deputy chief, and seven inspectors. This was particularly narked in the annual leave period, which coincides with the peak laughtering period July-September.

One additional inspector was recruited during the year, but there are till five vacancies (three for meat inspectors, one for dairies, and one or food sampling duties) which, so far, cannot be filled.

The difficulty of attracting inspectors to the intensive routine work of meat inspection has been considerable during the year.

TABLE III.

CARCASES AND OFFAL INSPECTED AND CONDEMNED IN WHOLE OR IN PART

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Horses
Number killed	24,620	38,880	33,802	272,075	94,983	—
Number inspected	24,620	38,880	33,802	272,075	94,983	—
All Diseases except Tuberculosis and Cysticerci.						
Whole carcases condemned ...	13	165	167	508	257	—
Carcases of which some part or organ was condemned ...	5,077	14,361	1,311	38,867	9,366	—
Percentage of the number inspected affected with disease other than tuberculosis and cysticerci	20·67%	37·39%	4·37%	14·47%	10·13%	—
Tuberculosis only.						
Whole carcases condemned ...	41	553	31	—	64	—
Carcases of which some part or organ was condemned ...	846	5,579	19	—	3,058	—
Percentage of the number inspected affected with tuberculosis	3·60%	15·77%	0·15%	—	3·29%	—
Cysticercosis.						
Carcases of which some part or organ was condemned ...	12	3	—	1	—	—
Carcases submitted to treatment by refrigeration ...	12	3	—	—	—	—
Generalised and totally condemned	—	—	—	1	—	—

Diseased Conditions.

Diseased Meat Condemnation

The carcases of 80,300 animals, approximately 17 per cent of the 464,360 animals slaughtered, showed abnormal conditions, and a detailed examination was made in each case. 1,800 carcases were totally rejected as unfit for human food, together with portions of 6,529 other diseased carcases. The weight of meat condemned during the year was 310 tons. See Table VI (Statistical Appendix).

In addition to the carcases totally or partially condemned, because diseased conditions made them unfit for human food, organs which showed diseased conditions were also condemned; the amount during the year was 784 tons. See Table VI (Statistical Appendix).

Sunday Slaughtering.

Sunday Slaughter

As noted in the annual report for 1954, the City Council resolved that Sunday killing at Stanley Abattoir would cease as from 13th February, 1955. In effect Sunday slaughtering ceased from that date and re-started on 24th April from which time it continued until the end of the year with the exception of Easter Sunday, Whit Sunday, Sunday 31st July, and Christmas Day. To make up for these Sundays, killing took place on the Mondays, which were of course Bank Holidays, and on Tuesday 27th December which was declared an official Bank Holiday.

Thus the inspectors were required to work right through from April until December either on routine Sundays, or on the bank holidays. The number of animals killed only on Sundays or bank holidays in this period was 100,790—more than are slaughtered in some abattoirs during twelve months—and equalled 21·7 per cent of the full year total kill of 464,360.

Custody of Detained Meat.

During the year provision of new accommodation for the safe keeping of detained diseased carcases was made by the Markets Department. It consists of a locked wired-off enclosure into which can be railed diseased carcases from the slaughter hall, pending final inspection. Hot and cold water and a suitable sink have been fixed, together with a steam supply for sterilising knives which become contaminated whilst cutting diseased carcase lymphatic glands and tissue.

Slaughter of Animals Acts, 1933-1954.

Two slaughtermen were convicted and fined £5 and £10 respectively by the Stipendiary Magistrate for slaughtering sheep which had not been rendered insensible to pain by the use of a mechanically operated instrument.

TABLE IV.

CARCASES AND QUARTERS OF HOME-KILLED MEAT BROUGHT INTO THE CITY MEAT MARKET FROM OTHER DISTRICTS.

Beef.	Beef.	Veal	Mutton	Lamb.	Pork.
(quarters) 60,706	(pieces) 2,842	5,808	11,314	70,003	48,878

Stanley Meat Market

7,952 boxes or packages of offal sent from Ireland were also dealt with in the meat market. Much of this offal arrived in an unsatisfactory condition.

TABLE V.

CARCASES OF IMPORTED MEAT DEALT WITH AT THE CITY MEAT MARKET.

Beef.	Beef.	Veal.	Mutton.	Lamb.	Pork.
(quarters) 148,739	(pieces) 26,213	187	172,988	683,299	19,409

Imported Meat and Offal

In addition to the above, 90,277 boxes or packages of imported meat and offal were dealt with in the meat market. In general, this meat and offal was free from pathological conditions but showed evidence of decomposition which necessitated reconditioning in many cases.

The following amount of imported meat and offal was destroyed by reason of bone taint, mould, brine damage or decomposition: beef 14,491 lbs., mutton 1,127 lbs., pork 3,953 lbs.

Special Examination of Foodstuffs.

In addition to the routine inspections of meat, fruit, vegetables and fish at the abattoir or the wholesale markets, special examination is given to the fish prepared by contractors for hospitals, schools and canteens in the City.

Council Food Contracts

Regular visits are made to day nurseries and other Corporation premises, for example, children's homes, aged persons' hostels, to examine meat, fish, vegetables and groceries supplied by contractors to the Council, to ensure that only the quality of foodstuffs specified is being delivered.

The manufacturer of margarine supplied by a contractor was prosecuted and convicted, being fined £20 and ordered to pay £5 5s. 0d. costs, for selling margarine which was affected by mould, to a school kitchen of the Liverpool Education Committee.

Poultry.

All poultry is examined on arrival at the markets before sale, and in addition, during the year, 473 boxes of sub-standard poultry from Northern Ireland were subject to a special detailed examination. This resulted in 1,749 head of poultry being rejected for reasons set out as follows:—

Arthritis	54
Decomposition	233
Emaciation...	879
Epithelioma	25
Fibroma	143
Ill Bleeding	37
Injury	134
Lymphadenoma	11
Oedematous Oviducts	233
	1,749

It has been noted that as a result of this special attention paid to the examination of sub-standard grade poultry, the average quality of this grade has materially improved in the past four years.

In addition, 1,089 head of high-grade poultry were rejected mainly for decomposition.

Fish Inspection.

The Wholesale Fish Market supplies an extensive area on both banks of the River Mersey. During the year, 870,858 packages, 13,421 tons, of fish were handled in addition to some 26,668 packages of rabbits, poultry and game.

Fish Inspection

The inspection of this fish, game, poultry and rabbits resulted in the condemnation of some 80 tons as unfit for human consumption. See Table VI (Statistical Appendix).

It is interesting to record that 3 plaice, 3 hake, and 1 cod were found affected with sarcoma, carcinoma, or melanotic sarcoma lesions or growths. The routine bacteriological examination of various types of shellfish was carried out during the year and the results were satisfactory. It was not necessary on any occasion to condemn shellfish for pollution.

Fruit and Vegetables.

Fruit and Vegetable Inspection

The inspection of fruit and vegetables at the North Market, Queen Square, and the various wholesale storage warehouses, has been maintained during the year. Samples of citrus fruits have been examined for the presence of diphenyl from being wrapped in paper treated with this preservative. None of the samples contained excessive amounts of diphenyl. The total amount of fruit and vegetables rejected during the year was some 224 tons.

Disposal of Unfit Foodstuffs.

Disposal of Unsound Food

Wherever possible unsound foodstuffs are utilised for animal feeding after sterilisation. The bulk of fruit, vegetables, and cereals are thus utilised. Canned goods present a problem as they have to be disposed of at the Corporation tip at Sefton Meadows, because pig feeders will not be troubled to open the tins or dispose of them.

Diseased or unsound meat and offals are distinctively green-stained after rejection. During the year, carcase beef in whole sides has been sold, under guarantee that it will not be used for human consumption, to a processor outside the City.

All offal, carcases of pork, mutton and veal, have been rendered and utilised for bones, tallow and meat meal, by the by-product plant operators, the bulk of this treatment being carried out in their abattoir plant.

TABLE VI.

QUANTITY OF FOOD CONDEMNED FOR DISEASE OR FOUND UNFIT FOR HUMAN CONSUMPTION

	Tons	Cwts.	Qrs.	lbs.
Beef, Veal, Mutton, Pork	310	4	2	2
Offal	784	7	3	16
Fish (Wet)	59	2	2	26
Fish (Dry)	11	6	3	9
Shellfish	3	4	3	11
Poultry	6	4	1	15
Game	—	2	2	—
Rabbits and hares	—	6	3	14
Fruit	58	3	3	8
Vegetables	165	6	2	2
Nuts	4	6	3	16
Dried fruits	2	6	—	13
Canned foods	42	2	1	14
Sundries (Sausages, cereals, jellies, etc.)	5	10	—	23
Total quantity of food condemned	1,452	16	2	1

Trichinosis.

Trichinosis

Routine samples of pork snippets are submitted for examination every week to the Public Health Laboratory Service who have developed a special technique for this purpose. In the 2,230 specimens examined no trichinella have been found.

Precautions Against Contamination of Food.

Visits to Food Preparing Premises

During the year, 34,937 visits of inspection were made by the food inspectors to premises where food was prepared. Details of these visits are given in Table 1. The number of premises registered under Section 14 of the Food and Drugs Act, 1938, for the manufacture or preparation of sausages, potted, pressed, pickled or preserved food is 582.

Food Complaints

During the year, 239 complaints were received from members of the public. These complaints varied from the presence of a beetle in a tin of corned beef packed in South Africa to a loaf of bread containing a nail (see legal proceedings). In every case a thorough investigation was made.

Notices Served

The provisions of Section 13 of the Food and Drugs Act, 1938, have been enforced, 49 notices were served in regard to contraventions which were not remedied on verbal notification. Under the Clean Food byelaws (Section 15 of the Food and Drugs Act) 13 notices were served for infringements of the provisions.

Retail Fish Market.

City Markets

The continued existence of the Retail Fish Market as carried on at present is unsatisfactory from a public health viewpoint and this matter is now being dealt with by the Markets Committee of the City Council.

St. John's Market has been the subject of report and recommendations from the Health and Markets Committees, and it is hoped that the proposals already accepted will result in further hygienic improvements particularly in the provision of drainage, water supply and toilet amenities.

Rose Street, Roe Street, Queen Square, Gt. Charlotte Street.

In the report for 1953 it was stated that "special agreement had been made (with the City Engineer and Water Engineer) for the regular washing of the streets especially during the summer months." This provision has been continued and it is hoped that improvements in the hygienic conditions will be maintained.

Fertilisers and Feeding Stuffs Act, 1926.

Samples of Fertilisers and Feeding Stuffs

During 1955, 46 samples of fertilisers and feeding stuffs were submitted for analysis. It was not necessary to take any legal proceedings. All samples with minor exceptions were found on analysis to conform with the manufacturers' statutory statement.

Pharmacy and Poisons Act, 1933.

Pharmacy and Poisons Act

The Pharmacy and Poisons Act, 1933, regulates the sale of poisons. It is the duty of the Local Authority to carry out Part 11 of the Act, which deals with the registration of persons selling poisons mentioned in the Poisons List. The number of names entered in the register is 715. It was not necessary to institute any legal proceedings.

THE CLEANLINESS OF MILK.

Milk

During the year, the standard of cleanliness of milk has been very satisfactory. Regular routine samples were taken from the herds of producers within the City, and also from the milk brought into Liverpool daily by road and rail from County areas of Lancashire, Cheshire, Denbighshire and Shropshire.

Bacteriological Examination of Milk

The total number of milk samples submitted to the Public Health Laboratory Service for examination was 2,461, comprised as follows:—218 tuberculin-tested milks and 2,243 heat-treated milks. The City is designated as a specified area in which only tuberculin-tested milk or heat-treated milk may be sold.

The tuberculin-tested milk was examined by the methylene blue reduction test, and subjected to guinea pig inoculation for the detection of tubercle bacilli. Heat treated milk was tested by phosphatase, methylene blue, or turbidity tests.

TABLE VII.

EXAMINATION OF MILK—METHYLENE BLUE REDUCTION TEST.

Designation	Number of samples	Satisfactory	Unsatisfactory
Tuberculin tested	218	191 (87·6%)	27 (12·4%)

TABLE VIII.

EXAMINATION OF MILK—TUBERCLE BACILLI.

Designation	Number of samples	Tubercle bacilli present	Percentage Tuberculous
Tuberculin Tested.....	214	—	—
Raw Milk	156	5	3·2%

Milk and Dairies Regulations, 1949.

Provisions with regard to Infection of Milk.

Tuberculous Milk

During the year, 5 cases of milk infected with Mycobacterium tuberculosis were found as a result of the routine inoculation of milk samples taken from dairy herds in the City. It was not found necessary to serve any notices under Article 20 of the Regulations requiring heat treatment of this milk before sale, because in each instance the Veterinary Officers of the Ministry of Agriculture and Fisheries detected the cows giving tuberculous milk within 24 hours of notification by the Medical Officer of Health. The cows were subsequently slaughtered at Stanley Abattoir.

Slaughter of Infected Cows

Registration of Dairies.

TABLE IX.

(*Food and Drugs Acts*, 1938-1950.)
(*Milk and Dairies Regulations*, 1949.)

Number of registered dairies at the end of 1954.	New applications for registration.	Registration refused.	Dairies removed from the register.	Number of registered dairies at the end of 1955.
436	35	—	21	450

(15 dairies were transferred from one person to another.)

Inspection of Dairies and Milk Shops.

Dairies and Milk Shops

3,302 visits of inspection were paid during the year. In 37 instances infringements of the Milk and Dairies Regulations, 1949, were found. In every case where a notice of requirements was issued it was complied with at once.

Milk Distributors

The number of registered distributors of milk is 461. Of this number, 16 have their premises outside the City boundary but bring supplies into the City daily. 6 of these distributors have no premises of their own but are registered at the place where they obtain their supplies and store their utensils. In addition there are 1,535 persons, mainly shopkeepers, who are registered as vendors of bottled sterilised milk.

Daily Supply of Milk to Liverpool.

TABLE X.

DAILY CONSUMPTION OF MILK DURING 1955.

Grade of Milk.	Quantity in Gallons.
Tuberculin-tested (Farm Bottled)...	496
Tuberculin-tested	305
Tuberculin-tested (Pasteurised under licence)	28,752
Pasteurised under licence	50,680
Sterilized	13,858
TOTAL ...	94,091

Orange Drinks. All the large dairy concerns in the City are now producing and bottling orange drinks. Separate plant, bottles and preparation rooms are devoted to this new feature of the dairying trade, and some idea of its growth during the last three years can be formed by a realisation that approximately 398,000 bottles of orange drink are filled daily in the three large wholesale dairies of the City. Much of this bottled orange juice is consumed in areas outside Liverpool. **Orange Drinks**

Heat Treatment of Milk.

There are now 13 pasteurising plants operating in the City, 6 of which are fitted with High Temperature Short Time plant, and 7 with Batch or Holder type plant. The capacity of the plants varies from 75 gallons per hour to 2,500 gallons per hour. All these various pasteurising plants are coupled with automatic bottle washers, mechanical fillers and cappers. Two dairies have fitted vacuum fillers and cappers during the year in place of open-head fillers. **Pasteurised Milk Plant**

The quantity of milk pasteurised daily has increased to approximately 125,000 gallons per day on account of extension of business to districts outside the City boundary.

Milk Sterilisation.

Three establishments are equipped with large scale sterilisation plant. The daily amount of milk sterilised is approximately 100,000 pints. It is of interest to record that one firm in the City processes and exports sterilised milk in bottles to West Africa. **Sterilised Milk**

TABLE XI.

EXAMINATION OF HEAT TREATED MILK FROM PLANTS IN THE CITY.

Class of Milk.	Number Tested.	Appropriate Test.	Number of Samples	
			Passed.	Failed.
Pasteurised...	1,164	Phosphatase ... Methylene Blue	1,159 1,159	5 5
Sterilised	225	Turbidity ...	225	—
Tuberculin Tested (Pasteurised)...	854	Phosphatase ... Methylene Blue	841 852	13 2
TOTAL	2,243	Phosphatase ... Methylene Blue Turbidity ...	2,000 2,011 225	18 7 —

The efficiency of heat-treatment plants in the City (which are among the most up-to-date in the country) is being maintained at a high lev and reflects credit on the firms concerned, who have co-operated wi the Health Department by accepting suggestions and criticisms achieving most satisfactory results.

Milk Supply to Hospitals and Aged Persons' Hostels.

Hospital Milk

The milk supplied by contractors is regularly sampled at time delivery. 234 samples tested chemically and bacteriologically prove satisfactory.

Milk Supply to Schools, Day Nurseries, School Canteens.

School Milk

Routine sampling is carried out at these premises covering all th suppliers. None of the 228 milks was found to be tuberculous, and a complied with the legal standards of quality.

Ice Cream.

Ice Cream

During the year, 1,480 visits of inspection were made by the foo inspectors to premises where ice cream was manufactured or sold. Th number of registered manufacturers is 129 and there are 1,748 premise registered for the storage and sale of ice cream.

Examination of Ice Cream

Of 182 samples examined bacteriologically, 112 samples were Grade 1 37 Grade 2; 25 Grade 3; and 8 Grade 4.

Chemical analysis of 9 ice creams showed the ingredients to comply with the provisions of the Food Standards (Ice Cream) Order, 1953, in every instance.

Ice Lollies.

Ice Lollies

The sale of ice lollies amongst children in the City, and indeed throughout the country as a whole, has been a feature of post-war years. It has been observed that many children consume three or four ice lollies daily.

Lead Contamination

An investigation into the question of lead contamination was reported in 1953, and since that time great improvement has taken place. Full co-operation by the trade has been forthcoming in an effort to reduce the lead content of ice lollies, and in only 2 samples out of a total of 81 examined was lead found, the amounts not exceeding 2 parts per million. One sample was found to contain a small amount of copper, whilst 2 of the frozen confections were found to contain benzoic acid. Appropriate action was taken in all these cases.

THE ADULTERATION OF FOOD AND DRUGS.

The importance of a pure food supply cannot be over-estimated, and low quality or adulterated foods cannot be tolerated.

Food and Drugs Sampling

The medical officer of health is, of course, responsible for ensuring that the foodstuffs offered for sale for human consumption in his area are pure and wholesome. This entails the constant vigilance of the food and drugs inspectors who purchase samples of foodstuffs of every description, and after analysis by the public analyst (whose duty is to test for adulteration), appropriate action is taken. In some cases legal proceedings are instituted; in others, advice is given to the vendor—particularly in regard to milk which proves to be of abnormal composition although genuine—and in other instances the packer or manufacturer is advised of the irregularity or technical offence. The laying of informations, service of summonses and the preparation of evidence is carried out by the food inspection staff.

Adulterated Food Samples

It is satisfactory to note that during the year 1955, out of a total number of 3,965 samples taken or purchased, only 5·8 per cent were found to be not genuine or otherwise giving rise to irregularity. This comparatively low figure is a tribute to food suppliers and shopkeepers as well as to constant inspection and sampling.

Of the total number of 3,965 samples, 599 were formal and 3,366 informal. An "informal" sample is one purchased without intimation to the vendor that it is to be analysed. Valuable information as to irregularities is obtained in this way. Prosecution for adulteration cannot be undertaken, however, until a "formal" sample has been taken subsequently, in accordance with the procedure described in the Food and Drugs Act, 1938. 59 formal samples and 172 informal samples were reported as not being genuine or otherwise giving rise to irregularity. Legal proceedings were instituted in 59 cases where formal samples were found not to be genuine, and in the remaining instances appropriate action was taken.

Legal Proceedings.

TABLE XII.

OFFENCES UNDER THE FOOD AND DRUGS ACTS, 1938–50.

Number of Informations laid.	Nature of Sample.	Nature of Offence.	Result of Legal Proceedings.							
			Number of convictions.	Fines.			Costs.			
				£	s.	d.	£	s.	d.
57	Milk	Contained added water ...	57	166	0	0	71	18	0
1	Milk	Deprived of milk fat ...	1	5	0	0	1	1	0
1	Beef Sausages with preservative	Deficient of 14% of meat	1	10	0	0	1	1	0
1	Quaker Oats ...	Contained live beetles and larvae	1	5	0	0	8	8	0
1	Brawn ...	Contained a pieee of wire	1	5	0	0		5	0
1	Loaf of Bread	Contained a sharp nail ...	1	10	0	0		13	0
1	Linctus Simplex	Contained a dead spider	1	20	0	0		10	6
1	Kosher Margarine ...	Affected by mould ...	1	20	0	0	5	5	0
64			64	241	0	0	89	1	6
				£330 1 6					

FOOD HYGIENE.

Food Hygiene

Food hygiene continued to be one of the most important duties of the Sanitary Inspector staff. With many improvements already being accepted by the trade the most obvious danger at present is that complacency may arise.

Need for New Ideas

The recognition of this possibility requires steps to be taken to combat it. If necessary, new ideas must be used to quicken or stimulate the concern of all responsible individuals. Old trade practices which hamper progress must give way to methods that will make hygiene a reality and a pleasure, not some remote ideal.

Need for Education

It is also very evident that the methods of imparting the principles of food hygiene to staffs require urgent review. There are still too many people who "don't know"; who "don't care", or who are "too busy". Managements and supervisory staffs are, in many cases, too prone to be content to tell their assistants to do, or not to do, certain things without explaining the reason for, or the significance of, the order. Maybe these overseers are also ignorant of the reasons affecting the precautions required.

Prosecution

During the year a prominent catering firm was prosecuted and fined, and the inspection and subsequent enquiries revealed that the conditions were not only due to the negligence of the assistants but also to the lack of understanding and the right kind of supervision on the part of the management.

Progress

It is true that much progress has been made, and many improvements have resulted from the action taken by sanitary inspectors and the enterprise of many firms and their employees, but the problem remains and demands the strict attention of every individual.

The New Hygiene Regulations

The past year has been one of expectancy and anticipation, so far as food hygiene administration is concerned, in view of the declared policy of the Ministry to press forward with new legislation which, it is hoped, will have the effect of giving a new impetus to the campaign for securing clean and safe food. It was not until the end of December that local authorities were advised that a new Food and Drugs Act and Hygiene Regulations would come into force on the 1st January, 1956.

Improved Standards

Compliance with the new legislation will undoubtedly assist considerably in raising the standard of hygiene in food premises, and the maximum penalties which can now be imposed for failure to take heed of the requirements should be a spur to recalcitrant and careless traders.

Action Already Taken

In general, the new regulations endorse the practice and attitude adopted by this department in respect of food premises for the past decade, and the requirements will not be regarded as revolutionary by the majority of food traders in the City.

New Legislation

The need for stronger powers to enforce the essential standards of personal and environmental hygiene has been recognised for some time, and hopes have been raised and lowered by protracted discussions and considerations.

A great deal has already been written on the merits and demerits of the new requirements but it remains for the experience arising from their application to reveal their full effect. It has been said by a competent authority that, in the light of this experience, the regulations will be reviewed from time to time by the Ministry, and alterations made to strengthen or modify them. It is to be hoped that this will be done and that the advantages gained so far by this new way of tackling an old problem will not be adversely affected by the lack of continued and progressive action.

Cafes, Restaurants and Snack Bars Inspection

It is the policy of the department to give prior attention to the food establishments in the City for it has been found that only by constant supervision can it be hoped to maintain an acceptable standard of hygiene.

Staff Changes

The principal factor contributing to the difficulties of acquiring and maintaining this standard arises from the frequent changing of personnel and the types of persons engaged, particularly in cafe and restaurant kitchens.

Far too many of these employees are slow to respond to training and instruction and when, perhaps, they are showing some improvement or understanding of their duties, decide they have had enough and walk out, leaving the management with the unenviable task of starting over again.

Co-operation

It can, therefore, be appreciated how great is the task of the managers and supervisors who, in the main, endeavour to do all that is required of them. Many do not wait for the inspectors' routine visits but seek their help and advice by requesting them to call.

Personal Hygiene

Managements must emphasise the principles of personal hygiene in relation to their particular trade or business. These principles are not difficult to understand and can easily be learned by individuals who have had no scientific training. There is an opportunity here for the various food trade associations to initiate short courses of training for responsible persons engaged in food businesses and they in turn could pass on their knowledge to other employees. Owing to frequent changes of personnel in the food industry, particularly the catering trade, it is most essential that loyal and reliable employees should be kept well informed on matters relating to hygiene and given the responsibility of seeing that new entrants are also instructed in this aspect of the business.

Supervision of Food Handlers

It is evident that during their periodical visits to food premises, inspectors can only concern themselves with visible defects and obvious unhygienic practices, as the control of day-to-day personal hygiene by enforcement is impracticable. The personal habits of food handlers should be beyond reproach at all times, not only when the inspector is present, and this ideal state can only be achieved by education and constant supervision.

Personal Habits

Discipline

It is a common experience for the inspectors to find that occupiers of food premises are reluctant to take disciplinary action in the cases where certain classes of employees are found to be indifferent or unappreciative of hygienic practices and this is due no doubt to the difficulty in replacing employees in these days of over-employment.

Staff Problems

Short staff problems are, however, preferable to a business being the source of an outbreak of food poisoning which is not only prejudicial to public health but may seriously affect and prejudice the economics of the business.

Improvements

Proprietors, also, are anxious to make and keep their premises right and during the year new and improved modern equipment has been installed or ordered in a number of cases following on the suggestions or requests of the department.

Coffee Stalls

Whilst it must be admitted that coffee stalls or vans meet a certain public need, some of these units present a serious problem. Most of them were established, and given local authority permission during the war or immediately after it, to use certain sites. Action has been taken during the year and in one case, in order to meet the requirements of the department, the proprietor was obliged to purchase a modern, fully equipped unit to replace the van which he had used for several years and which had become unsatisfactory.

Food Shops

Food shops have also been given the maximum possible attention, for the conditions in these premises are of no less importance than those in cafes and restaurants. They, too, suffer from the same staff problems and, in addition, from the difficulties arising from inadequate display and storage space.

Food Display

The conditions in the shop portion of these establishments are generally satisfactory although such matters as cooked meats, etc., being put on open display by over-zealous assistants still call for the vigilance of inspectors on their daily round. It is remarkable that often an assistant will put unprotected foodstuffs on top of the glass counter screens instead of behind it. On occasions inspectors have found bottled and packeted goods safely stacked behind a screen whilst cakes or other unwrapped foods are fully exposed to contamination from thoughtless and careless customers.

Storerooms

Inspectors also find that storage rooms do not receive sufficient attention and sometimes an excellent shop will conceal an unsatisfactory storeroom. Therefore, the need for thorough attention is ever present and, although the standard in food shops has been improved and, in great measure maintained, there cannot be any lessening of the department's work in the enforcement of the Food Hygiene Regulations.

Personal Responsibilities

Shopkeepers must give more attention to the practices and responsibilities of their employees. Sometimes the manager or manageress is so burdened with the business of the shop that they are unable to give sufficient attention to matters of personal hygiene, both in regard to themselves and their assistants, or to the cleanliness of the premises and equipment.

Unfortunately, financial considerations are allowed to prevent the solution of these domestic problems. Unless food premises are adequately staffed and the employer accepts his responsibility of ensuring the proper apportionment of essential duties beyond those of serving customers and to see these duties are carried out properly, there can be no permanent improvement, and the elimination of food poisoning will never become a reality.

Financial Consideration

Sanitary inspectors have made 4,561 visits to food shops and have reported 723 infringements of Section 13 of the Food and Drugs Act, 1938, and 212 contraventions of the Food Byelaws. All these matters were dealt with by notice or warning letter and it has not been considered necessary to take Court proceedings in any instance.

Inspections

Fish Frying Establishments.

The 1,298 visits made by inspectors to fish frying establishments have shown that the standard of hygiene has been quite satisfactory during the year. Defects in structure and equipment have, of course, been observed, but these were invariably remedied in each case within a reasonable time on drawing the attention of the proprietor to the matter either verbally, or by letter from the department, and in these circumstances it was unnecessary to resort to legal action.

Inspections

There have been a number of new entrants into the business in the past few months, most of whom are of Chinese nationality, and it has been found that the construction of the premises occupied by these persons and the manner in which they conduct the business from a public health angle, compares favourably with the better class of establishments.

New Businesses

It is worthy of note that in all these cases, the advice and guidance of the sanitary inspectors was voluntarily sought before commencing the conversion of the premises or before the equipment was obtained. This action has been most gratifying as it exemplifies the confidence that traders place in the department and is a result of the past efforts of inspectors to convince the trade that hygienic premises and practices are as important in this business as any other establishments supplying food.

Advice to Potential Traders

Unsuitable Premises

There have been several cases where the inspectors have not hesitate to advise persons who wish to establish themselves as fish friers, not t proceed further with their intention in view of the obvious unsuitabilit of the premises or where the available finance has not been considere sufficient to carry out the work of making the premises satisfactory an procuring suitable equipment which would enable the business to b conducted in a hygienic manner.

Bakehouses.

Hygiene as Sales Factor

Observation during the year has confirmed the fact that the terr "bakery hygiene" is becoming more and more a reality in the majorit of bakehouses in the City. Commendable steps have been taken b many bakers to secure a sound standard in this respect, and hygiene i considered a significant production and sales factor, particularly by th larger firms.

The Training of Employees

In this type of food factory there is always a risk that some process operation or commodity may be the source or focal point of an outbreak of food poisoning, and an appreciation of this hazard by all concerne is a most important step.

Health Education

This fact is constantly emphasised by inspectors during their visit to bakeries and should be instilled into every employee by supervisor or proprietors. The use of visual aids in the form of notices an posters are not to be discouraged as a means of educating workers, bu the staff are inclined to forget or overlook the message or instructio unless the phrasing and design of the notices, etc., are periodicall changed.

Personal Contact

Personal contact and example by trained supervisors is probably th most effective method of seeing that employees understand what clea food handling means, and as an example, the daily inspection of th hands of food handlers acts as a check and a reminder.

Like other sections of the food industry, there is a constant change o personnel in the lower grades of bakery employees and new entrants ar a great danger to a trade of this nature where much handling of th food is unavoidable unless each employee is carefully trained an supervised.

788 visits were made to bakehouses in the year and although the trade, as a whole, has measured up to public health demands, it has been found necessary to draw attention to unsatisfactory conditions on occasions and appropriate notices were served in respect of these matters. Legal proceedings were also instituted in two cases in view of the serious nature of the offences, and fines totalling £25 and £15 respectively were imposed by the Stipendiary Magistrate.

Legal Proceedings

Licensed Premises.

2,642 visits have been made to public houses and similar licensed premises by the sanitary inspectors and particular attention was given to the methods adopted in the washing of beer glasses, which had necessitated observation being kept during the busy periods, particularly in the evenings.

Washing of Beer Glasses

It is appreciated that practical difficulties do arise when customers are clamouring to be served during the rush hours, but as there is no current shortage of glassware there is little excuse for the serving of drinking vessels which are perfunctorily washed in bar sinks in water that is infrequently changed.

In other classes of catering establishments the washing-up is done by persons specially employed for the purpose but this practice does not obtain in the licensing trade except in rare cases.

Sterilizing Agents

During the peak periods in the ordinary house when a rapid circulation of glasses is needed, the staff are too busy serving to give the necessary attention to the cleansing of the drinking utensils, and in these circumstances the use of one of the bactericidal detergents recommended by the Institute of Brewing is of paramount importance.

It has become a regular duty of the inspectors concerned, to ascertain if a supply of a suitable sterilising agent is available for use, and all the brewing companies have been approached on this matter.

Complaints are occasionally received from licensees that sterilising agents have the effect of causing glasses to appear streaky or cloudy, but investigations have shown that this has been invariably due to incorrect dosage.

A special sink dispenser which was devised to overcome this difficulty, has not proved to be infallible in this respect.

Mechanical Glass Washing

The number of licensed premises using mechanical glass washing apparatus is increasing but this method is invariably supplemented by manual cleansing in the bar sinks in the rush hours in the busy houses in the City.

Two types of machine are favoured in the area, which are fixed on the counter. One employs a travelling belt which carries the glasses through an enclosed space where they are subjected to a warm and cold rinse, and the second depends on the mechanical action of rapidly revolving rubber strips in a water spray. The incorporation of a regular supply of liquid sterilising agent is possible in both types of machines.

Although opinions may differ on the merits of glass washing machines, the glasses are at least washed in fresh running water, and this has pronounced advantages from a hygienic point of view.

Sanitary Accommodation (Customers)

Some progress has been made in the past year in bringing the sanitary accommodation in the older public houses into line with modern requirements. The factors which retard conversion and improvements have been referred to in previous annual reports.

Sanitary Accommodation (staff)

In this class of business where the very nature of the trade demands adequate sanitary accommodation for customers, it is most important that a separate convenience should be reserved for the employees. It is not advisable from a hygienic point of view that employees who are handling food and drinking vessels should be expected to make use of the accommodation provided for customers. The fact that the water-closets can be used by all types and classes of individuals and are often subjected to abnormal use during rush hours, is sufficient evidence in support of a policy of separate sanitary conveniences for employees.

Licensed Premises in Slum Areas

Many sub-standard public houses are situated in areas which are affected by slum clearance and town planning schemes and the future of several premises is still in doubt.

In these circumstances it is possible to appreciate the reluctance on the part of the companies to spend large sums on reconditioning and improving sanitary accommodation in premises which may have to be

demolished, and every effort should be made to clarify the position as speedily as possible so that the necessary work can proceed on licensed premises which are to be retained.

Institutional Canteens.

Number of Visits to Institutional Canteens

The assistance of the department is frequently sought on matters affecting canteens and kitchens in schools, hospitals and other institutions. 85 visits have been made to this type of food establishment during the year. Advice is given on the construction of food rooms, equipment and on other aspects which have a bearing on hygienic catering. Recommendations and suggestions are submitted to the authorities concerned and these have invariably been implemented with a minimum of delay.

Industrial Canteens.

Canteens and Welfare

The provision of good canteen facilities, which has been regarded for some time by most industrial concerns as an important factor in attracting and retaining labour, is gradually being accepted as an indispensable welfare amenity by many retail stores and commercial houses.

Supervision Problems

During the 190 visits to these premises in the year it was observed that the problem of finding the right type of labour to man this type of catering business is becoming more difficult, as does the responsibility of supervisors to see that a satisfactory hygiene standard is maintained. Experience shows that a successful canteen is usually a clean and well managed unit and is one staffed by competent cooks and kitchen assistants.

Unimaginative menus and indifferently cooked meals discourage support, and in these circumstances a gradual deterioration invariably occurs both as regards environmental and hygienic conditions. It is, therefore, most important that before embarking on a project of this nature, the sponsoring company should be assured that sufficient trained personnel are available and that the equipment and construction should be sound and of a high standard to enable the kitchen workers to prepare food under first-rate conditions.

It is an advantage for a canteen to be used by members of the firm who hold executive positions as this has a pronounced influence on the manner in which the establishment is conducted and encourages employees to patronise the canteen and the kitchen staff to be interested in their work and appearance.

DISINFECTION AND DISINFESTATION

The varied duties which this section of the department is called upon to undertake are, with one or two minor exceptions, continuing to expand.

It may be of interest to list the functions of the section and then to give a brief summary of the duties performed during the year:—

1. Inspection of premises for verminous condition.
2. Disinfestation treatment of verminous premises.
3. Disinfestation treatment of verminous furniture, etc.
4. Disinfestation and disinfection stations.
5. Disinfection of infectious premises.
6. Fly prevention.
7. City Mortuary.
8. Burial service.
9. Storage, distribution and collection of Home Nursing equipment.
10. Mobile meals service.
11. Food and general store.
12. Welfare Foods service.
13. Miscellaneous services.

1. *Inspection of Premises for Verminous Condition.*

Inspection of Premises for Verminous Conditions

Inspections of dwelling houses, hospital premises, canteens, cafe kitchens, locker rooms and various factory premises originate from a number of sources, and may be divided into the following categories:—

(*a*) The majority of inspections of dwelling houses are made on behalf of the Housing Department and they are carried out with the intention of obtaining information regarding the verminous condition of furniture and effects belonging to those families who are recommended for re-housing.

(*b*) A growing number of requests are received from owners or occupiers of dwelling houses who suspect that the premises are vermin infested. If, in fact, these premises are found to be verminous and disinfestation treatment is requested, the cost of such treatment is debited to the complainant.

(*c*) Hospital Management Committees are increasing their requests for inspection and treatment of those hospital premises where cockroach or steam-fly infestation is suspected.

(*d*) Inspection of staff canteens is a regular feature of this branch of the service, as these premises frequently become infested with steam-flies or cockroaches. The cost of such treatment is debited to the owner of the premises.

(*e*) Some manufacturing processes require absolute cleanliness and freedom from vermin and the services of this section are requested when the manufacturer has reason to believe that minor infestations are occurring in his premises.

The number of inspections during the year in all these connections was 6,521, of which 2,332 were found to be vermin infested.

2. *Disinfestation treatment of Verminous Premises.*

Disinfestation

As a result of the inspections detailed in the previous paragraphs, disinfestation treatment was carried out in the following cases:—

(*a*) 657 dwelling houses treated at the request of the Housing Department.

(*b*) 326 dwelling houses treated at the request of owners or occupiers.

(*c*) 225 treatments of hospitals, staff canteens, factory premises, etc. a total of 1,208 treatments.

3. *Disinfestation treatment of Verminous Furniture, etc.*

In conjunction with the treatment of dwelling houses, it becomes necessary in the majority of cases for furniture, bedding and personal effects to be subjected to treatment. The method of treatment is for furniture, bedsteads, pictures, etc., to be treated on the premises, but it is necessary for mattresses, bedding, etc., to be removed to a disinfestation station for adequate treatment. The latter process is carried out with the minimum amount of inconvenience to the tenants.

Disinfestation of Premises of Elderly Persons

On behalf of the Welfare section of the health department an increasing number of dwelling houses and apartment rooms are disinfested. These are premises in which the occupants have been removed to hospital or are unfit to adequately clean the premises unaided, and in a small number of cases the occupant has died.

4. *Disinfestation and Disinfection Stations.*

Disinfestation Stations

There are two stations in continual use, one is at Smithdown Road and the other at Charters Street. They are used primarily for the disinfestation of verminous articles from premises in course of treatment and the disinfection of articles removed from premises and ships in which infectious disease has occurred.

They also derive an income from the precautionary disinfection of various articles intended for export. This work is performed on behalf of various undertakings who are prepared to defray the cost of such treatment.

The amount of work carried out in this connection is:—

6,879 verminous articles disinfested.

14,787 infectious articles disinfected.

315 infectious library books disinfected, and returned to circulation.

14,829 articles disinfected as a precautionary chargeable measure.

1,629 tons of miscellaneous goods, the outer wrappers of which are disinfected as a precautionary chargeable measure.

5. *Disinfection of Infectious Premises.*

Disinfection after Infectious Disease

In the event of infectious disease occurring in any premises, the necessary disinfection is carried out by staff from this section, and infectious bedding and personal effects are removed for treatment at the disinfection stations.

In this connection 2,088 infectious premises were disinfected during the year.

Applications are frequently made for disinfection of premises in which disease of a non-infectious nature has occurred, and in these cases treatment is carried out, the cost being debited to the occupier of the premises.

6. *Fly prevention.*

Fly Prevention

The principal target for this service is the breeding ground of flies, and for this purpose, regular periodic treatment of manure dumps, middensteads, etc., is carried out from early spring until autumn. This service has proved its worth in a considerable abatement of the fly menace during the summer months, and has also been instrumental in obtaining the helpful co-operation of the owners of stables and shippons.

7. *City Mortuary.*

The provision and maintenance of the City Mortuary is the responsibility of the health department. It is used for the reception from the City and the river of the bodies of persons who have died in unusual circumstances. **City Mortuary**

During the year, 481 bodies were received and, at the instruction of the City Coroner, 448 post-mortem examinations were held.

Burial Service.

Section 50 of the National Assistance Act, 1948 imposes a duty on the Local Authority to arrange for the burial or cremation of persons found dead in the City, where it appears that no suitable arrangements are being made by relatives or friends. Among the cases notified in this category are quite a number in which the person has died alone, and information is furnished to this department by landladies or neighbours.

During the year, this service arranged for the burial or cremation of 127 adults and children and 4 stillborn babies.

As an auxiliary to this service, the health department has an arrangement with Local Hospital Management Committees for the transfer of bodies between hospitals. Under this arrangement, 240 bodies were transferred during 1955.

9. *Home Nursing Equipment.*

The quantity of equipment being handled in connection with this service is growing continually and has assumed a considerably greater proportion than when the scheme was first introduced. **Home Nursing Equipment**

The storage, distribution, collection and maintenance of the varied types of equipment now in use is handled by this section of the department, and during the year, 2,564 visits were made to the homes of persons in need of nursing equipment. This is a marked increase from the 1,860 visits paid in 1954.

10. *Mobile Meals Service.*

This service continues to function in one area of the City, and the necessary transport is provided by this section. During the year, 6,201 visits in this connection were made by vans from this department, an increase from the 5,301 visits paid in 1954. **Mobile Meals Service**

11. *Food and General Store.*

Food and General Store

This store, which is situated at Gascoyne Street Depot continues to function in a satisfactory manner and the annual turnover shows a further increase over the previous year of approximately 10 per cent. Food, chandlery and general stores are supplied to 154 establishments, the majority of which are those under the control of the health department, but included in this number are several establishments belonging to the children's department, school medical department and one police establishment.

The complete list of establishments which are supplied from this store is:—

25 Maternity and Child Welfare Centres.

14 Day Nurseries.

69 Domiciliary Midwives.

9 Aged Persons' Hostels.

5 Mental Health Establishments.

9 Children's Department Establishments.

Police Training College.

21 Other establishments.

12. *Welfare Food Service.*

Welfare Foods Service

The services associated with the distribution of welfare foods are controlled by this section of the department.

The functions of this service are to arrange for the distribution to the general public of National Dried Milk, Cod Liver Oil, Vitamin Tablets and Orange Juice, and for this purpose a considerable number of distribution centres require to be maintained throughout the City. Where it is anticipated that the demand will be sufficient, new centres have been opened in order to continue an adequate service to the public.

To provide welfare foods to those areas which are not adequately served by a fixed distribution centre, a van is placed at certain points in the City on specified days at fixed times and has proved extremely useful in maintaining the efficiency of the service to beneficiaries. This vehicle serves a dual purpose in maintaining supplies to the fixed distribution centres.

The number of centres in use is:—

18 full-time.

24 part-time.

5 mobile points.

The following figures of the turnover during the year may be of interest:—

683,938 tins National Dried Milk.

94,967 bottles Cod Liver Oil.

39,555 packets Vitamin Tablets.

510,637 bottles Orange Juice.

13. *Miscellaneous Services.*

Miscellaneous services include:—

Miscellaneous Services

(*a*) the collection and removal of furniture and equipment to and from aged persons' hostels.

(*b*) Collection, repair and delivery of day nursery equipment and furniture.

(*c*) Transport of equipment on behalf of the mental health service.

(*d*) Various transport duties on behalf of the children's department.

(*e*) Two new duties which have recently been undertaken for the midwifery service, are the delivery to patients' houses of gas and air machines and the transport required from home to hospital of milk required for the feeding of babies who are patients in hospital.

(*f*) A variety of other transport duties necessary for establishments under the control of the health department.

Vehicles and Maintenance.

Staff

Thirteen motor vehicles are in continual daily use and during the year have covered 113,610 miles and consumed 8,229 gallons of petrol. The complete maintenance of these vehicles is carried out by the staff at Gascoyne Street Depot.

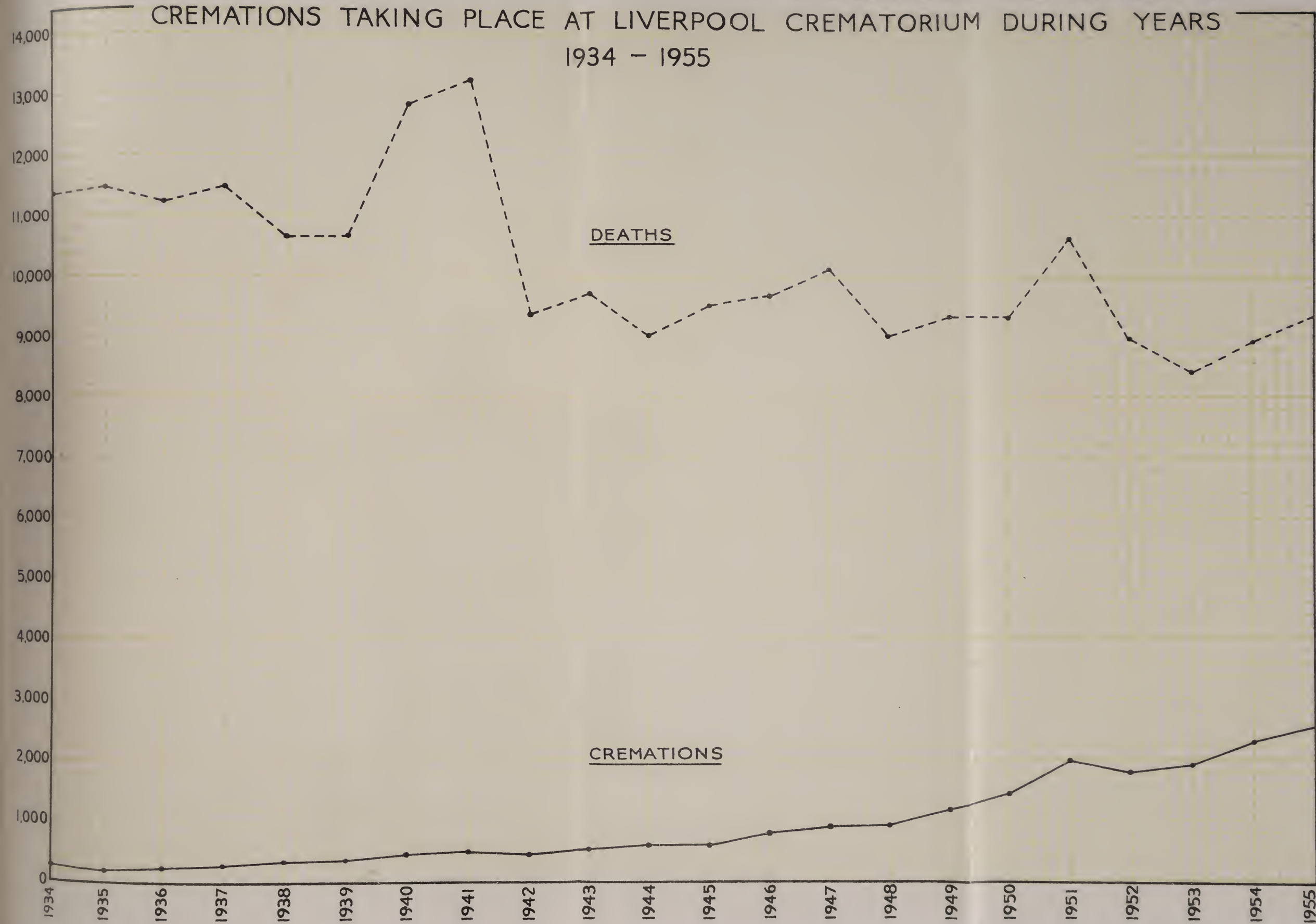
CIVIL DEFENCE

The Ambulance and Casualty Collecting Section of the Civil Defence Corps has been very active during 1955. During this period, six training courses were arranged and 258 persons completed training. All enrolled persons, with the exception of 13, had been invited to training classes. The total number of volunteers in the section is over 1,200. The new type training was introduced with a syllabus lasting 21 sessions, and including all aspects of Civil Defence, Ambulance, and First Aid Duties. Volunteers who had previously attended training have been invited to revision Courses. The training of drivers continued throughout the year, but is somewhat slow because of the individual tuition given. It has been found desirable to arrange for students to be given driving practise prior to entering for official test, and has been achieved by using volunteers who hold current licences.

The total strength of the Rest Centre Sub-Section at the end of the year was 798 volunteers, of whom 207 were fully trained. During the year, for the remaining personnel six courses of instruction have been held on the subject of the care of the homeless and one course on home nursing. In conjunction with the staff of the Civil Defence Headquarters, exercises and competitions have been held to stimulate the interest of members. This service has earmarked a large number of premises for use in the event of war, and in view of the possibility of nuclear warfare, attention is being paid to the need for these centres on the periphery of the City and in the contiguous areas.

The strength of the Shelter Welfare Section is 22, comprising 9 trained volunteers and 13 volunteers who, unfortunately have not found it convenient so far to attend courses of lectures. Nevertheless, a number of lectures were given to Rest Centre personnel and members of various voluntary organisations, on the provision of a wholesome water supply, sanitary accommodation, refuse disposal, pest control and the general principles of food hygiene under emergency conditions.

GRAPH SHOWING TOTAL DEATHS OCCURRING IN LIVERPOOL AND NUMBER OF CREMATIONS TAKING PLACE AT LIVERPOOL CREMATORIUM DURING YEARS 1934 – 1955



CREMATION.

Cremation

The Medical Officer of Health is appointed by the Home Office to be Medical Referee to the Liverpool Crematorium, and there are two deputies. The statutory documents connected with cremations are scrutinised at the Central Offices of the Health Department before authority to cremate is given, and there is close liaison with the Crematorium.

Cremation as a means of disposal is growing steadily amongst all classes of the community, and in recent years notable improvements have been effected at the Crematorium itself. The number of cremations both locally and nationally increases year by year. So far as Liverpool is concerned, since 1940 for example, when there were 482 cremations, the number has now grown to 2,546 per annum, despite the opening of new crematoria in adjacent areas.

The graph facing shows the increase in cremations taking place at the Liverpool Crematorium since 1934, together with the number of deaths occurring in Liverpool over the same period. It must be borne in mind, however, that the number of cremations at the Liverpool Crematorium includes cases brought in from outside areas such as Bootle, Crosby, St. Helens, etc., as there is still no other crematorium in S.W. Lancashire.

WATER SUPPLY.

The water supply in the area during 1955 was satisfactory both in quality and quantity.

Bacteriological examinations of the waters were made regularly by the Public Health Laboratory Service, samples for these routine examinations being taken both in the City and Prescot Storage Reservoirs.

The supplies from both Rivington and Lake Vyrnwy are treated by slow sand filtration and chlorination, and by lime in order to raise the pH value; further chlorination is carried out at the Prescot Reservoirs.

There are no parts of the area dependent upon stand-pipes for a supply.

REPORT OF THE CITY BACTERIOLOGIST.

During the year this Department was transferred from the Liverpool Corporation and became an establishment of the Public Health Laboratory Service which is directed by the Medical Research Council for the Ministry of Health. This transfer took effect at the end of March, which explains why the following statistics are for a period of three months only:—

Examinations made in the Bacteriological Department during the period January to March, 1955.

Milk (fresh—liquid)	2,387	
Ice Cream	47	
Water	836	
Shellfish	26	
Foodstuffs	958	
Wool and Hair for Anthrax	98	
Rats for Plague	761	
Swabs from Throat and Nose Infections	1,240	
Specimens from Intestinal Infections	7,645	
Specimens for Weil's Disease	12	
Sputum and/or other Secretions for Tubercle Bacilli	1,447	
Exudates for Anthrax Bacilli	2	
Cough Plates, etc., for Whooping Cough	186	
Secretions for Organisms	234	
Miscellaneous Specimens	80	
		15,959
Venereal Diseases.		
Serological Tests	6,898	
Other Tests	48	
		6,946
		22,905

Plague.—761 examinations on rats were made, and none of the rats was found to be infected with plague.

Anthrax.—Of the samples of wool and hair submitted for examination by the Government Wool Disinfecting Station, 49 were untreated, of which 18 contained anthrax bacilli; 49 were treated and of these none was infected with anthrax.

INDEX

	Page
Abandoned houses	96
Adaptability of Inspectors	96
Advice to Potential Food Traders	161
Adulterated Food Samples	155
Aged, visits to	10
Ageing Property	106
Ambulance fleet	76
Ambulances, removals outside city	76
Ambulance section	xiii
Ambulance service, communications	75
Analgesia	13
Ante-natal clinics, special tests at	6
Acquisition, dangers of	106
Area planning	106
Ascertainment	68
Atmospheric pollution	xxii
Atmospheric pollution, deposits gauge	134
Atmospheric pollution, domestic problem	131
Atmospheric pollution, effects	132
Atmospheric pollution, exempted classes	131
Atmospheric pollution, legal proceedings	130
Atmospheric pollution and Lung cancer	xxiv, 132
Atmospheric pollution, main offenders	xxiii, 129
Atmospheric pollution and public buildings	130
Atmospheric pollution, warning to offenders	130
Bacteriological examination of Milk	151
Bakehouses	xxi
B.C.G. Vaccination	x, 55
Bereft Old People at Westminster House, by Dr. Robert Kemp	91
Birth rate	2
Blind employment	87
Blind welfare	xvii
Blind welfare statistics	87
Blind workshops	88
Blood specimens	49
Booklets	25
Burial service	169
Burst pipes	xix, 96

INDEX

	Page
Canal boats statistics	101
Cancer deaths	4
Cellar dwellings	110
Central Electricity Authority, co-operation	134
Certificates of dis-repair	105, 109
Chest physicians reports	56
Child mortality rate	4
Chimneys, guilty	131
City Abattoir	143
City Markets	150
City Mortuary	169
Civil Defence	xiv, 172
Civil Defence Ambulance and Casualty Collecting Section	172
Civil Defence, rest centres	172
Civil Defence, shelter welfare	172
Civilian disasters, major	76
Clarence Dock Power station	133
Clean Air Bill	133
Clearance areas represented	107
Clinic attendances	5
Clinics, temporary	5
Closing hours, evening	117
Closing orders	108
Coal sidings	138
Coffee stalls	160
Common lodging houses	100
Compulsory purchase and Clearance orders	107
Condemnation of diseased meat	145
Contraventions	102
Council food contracts	147
Cremation	173
Croxteth clinic	6
Daily minder	16
Dairies and milk shops	152
Day nurseries	17
Day nursery, private	16
Deaf and dumb	xvii
Deaf and dumb welfare	89
Demolition, deferred	104
Demolition orders	108
Department of Scientific and Industrial Research	135
Derelict houses and neglected sites	98
Developments and layout	105
Diesel traction	138

INDEX

	Page
Dilapidations	96
Diphtheria	29
Diphtheria immunisation	47
Disinfection and disinfestation	xxiv
Disinfection after infectious disease	168
Disinfestation	167
Disinfestation of premises of elderly persons	167
Disinfestation stations	168
Disposal of unsound food	148
District nurses	v
District nursing statistics	20, 21
Domiciliary confinements	13
Domiciliary welfare services	xvi
Drains choked	96, 100
Drain testing	100
Dust and fumes from processes	111
Dysentery at Westminster House	42
Dysentery, bacillary	40
Dysentery, Flexner	41
Dysentery in day nurseries	40
Employment agencies	113
Employment Officer (Mental Health)	65
Entertainment places	119
Epileptics	89
Exhibitions	25, 97
Factories, improved sanitary accommodation	111
Factory inspection	112
Filled-up ground	103
Filling materials, sampling	113
Film strips	26
Financial consideration	161
Fish inspection	148
Fish frying establishments	xxi, 161
Fly prevention	168
Food complaints	149
Food display	160
Food and drugs sampling	155
Food and general store	170
Food hygiene	xx
Food hygiene education	157
Food hygiene prosecution	157
Food poisoning	33, 99
Food poisoning cases, recording	32

INDEX

	Page
Food poisoning, re-organisation	32
Food shops inspections	161
Fruit and vegetable inspection	148
Furniture removers	103
Garden shelters	x, 55
Gastro-enteritis in a nursery	43
General death rate	2
General practitioners co-operation	iv, 15
Gowers Committee comment	116
Gowers Committee report	115
Guardianship	70
Hairdressers and barbers	xxii
Hairdressers and barbers, new legislation	118
Hairdressers and barbers, standard of premises	119
Hairdressers and barbers, survey	119
Half-day closing	117
Hand firing	137
Handicapped persons accommodation	xviii, 90
Head lice	7
Health education	xiv, 25
Health education, general	26
Health visitors, co-operation with general practitioners	15
Health visitors, co-operation with hospitals	iii
Heat treatment, chinese egg albumen	45
H.M. Inspectors of Factories, co-operation	111
Home help in maternity cases	23
Home help service	vi
Home help service statistics	24
Home help to aged	23
Home help to chronic sick	23
Home nursing equipment	v, 18, 169
Hospital confinements	13
Hospital discharges, early	13
Hospitals, liaison with	8, 10, 77
Hospital Milk	154
Hostels	xvi, 80
Houses demolished, number	107
Houses re-occupied under licence	108
Housing achievement	104
Housing Act, 1936, Part IV, overcrowding	110
Housing Acts, 1936, Sections 4 and 62	110
Housing survey results	107
Houses used for business purposes	106

INDEX

	Page
Housing, overcrowding	94
Housing points, allocation	94
Housing points scheme	xviii
Housing transfers	95
Housing transfer of points	95
Hydrogen Cyanide (Fumigation Act, 1937)	102
Hygiene as sales factor	162
Ice Cream	154
Ice cream and sweets, sale in places of entertainment	120
Ice lollies	155
Immunisation and vaccination	vi, 6
Imported meat and offal	146
Improvement grants	109
Individual unfit houses	108
Industrial canteens	165
Industrial effluvia	112
Industrial nuisances	111
Infant mortality rate	3, 11
Infectious diseases	vii
Infectious disease consultations	46
Infectious disease enquiries	99
Infectious patients, removal	76
Institutional canteens	165
Institutional care of defectives	71
Interdepartmental co-operation	99
Kemp, Dr. Robert, 'Bereft old people at Westminster House'	91
Land for redevelopment	108
Late night closing	117
Launderettes, employment in	115
Lead contamination	155
Lead peroxide method	135
Legal proceedings	99
Licensed premises	xxii, 163
Licensed premises in slum areas	105, 164
Liverpool Corporation Act, 1955	xix, 97
Loans on mortgage	110
Local authority houses	110
Marine stores	103
Mass radiography	xi, 58
Maternity and child welfare	ii
Maternal deaths	14
Measles	31

INDEX

	Page
Mechanical glass washing	164
Mental deficiency	xii
Mental deficiency institutional accommodation	xii
Mental health	xi, 26
Mental health accommodation	67
Mental health administration	64
Mental health after care work	65
Mental health evidence before Royal Commission	68
Mental health, preventive clinic	65
Mental health service, night duty	67
Mental health service statistics	66
Mice, destruction of	127
Midwifery service	iv
Midwives, co-operation with general practitioners	15
Midwives, medical assistance	13
Midwives, Part II training	14
Midwives, refresher courses	14
Milk, cleanliness of	151
Milk, daily supplies to Liverpool	153
Milk distributors	152
Miscellaneous services	171
Mobile meals service	169
Mobile Physiotherapy service	22
Mobile sanitary accommodation	98
Motor vehicle exhaust	138
Movable dwellings	xx, 100
Multiple births	12
Neo-natal deaths	11
New buildings	118
New food hygiene regulations	157
Notices served	150
Nursing homes	13
Occupations reviewed	115
Offensive trades	113
Offices and workplaces	113
Offices, etc., washing and heating facilities	114
Operations and resolutions arising from housing survey	104
Ophthalmia neonatorum	16
Orange drinks	153
Out-patient collection	77
Outstanding notices	97
Outworkers	112
Owners and agents, assistance	105
Oxygen therapy	76

INDEX

	Page
Parity	11
Parks	103
Pasteurised milk plant	153
Personal hygiene	159
Pet Animals Act, 1951	120
Pet Animals Act, 1951, fire precautions	120
Pharmacy and Poisons Act	150
Pigeons and starlings	xix, 98
Plague	121
Poliomyelitis	31
Poliomyelitis contacts	11
Poliomyelitis, family outbreak	32
Port Health authority inspectors	102
Posters, leaflets	25
Poultry	147
Poultry stores	103
Premature babies, after care	8
Premature babies, home care	7
Pre-school children	7
Prevention of Damage by Pests Act, 1949	120
Property protection	90
Psychiatric clinic	iv, 10
Public houses, sanitary conveniences	118
Public inquiries	108
Puerperal pyrexia	14
Railway engines	137
Rats, estimated number killed	126
Relaxation classes	6
Removal of human remains	103
Repair cost recovery	99
Report cards	33
Representation of houses	104
Research	viii, 11
Residential accommodation	70
Rhesus Factor	12
River View Rest Centre	xvii, 85
Rodent control	120
Rodent control, duties of local authority	120
Rodent control, preventative measures	128
Rodent disinfestation, methods	124
Rodent infestation	122
Rodent infestation, buildings and lands	122
Rodent infestation, ditches	123

INDEX

	Page
Rodent infestation, dwelling houses	124
Rodent proofing	128
Rodent survey	122
Rodents, method of destruction	125
Rodents, transportation in goods	123
Salmonella cholera suis	39
Salmonella infections	39
Salmonella stanley	38
Salmonella typhimurium	36
Salmonella typhimurium, outbreak at hostel	37
Samples of fertilisers and feeding stuffs	150
Sanitary accommodation in licensed premises	164
Sanitary Inspectors general duties	xx, 116
Sanitary problems	96
Sanitary section	xviii
Schick testing of nurses	30
Schools	103
School Milk	154
School outbreak of food poisoning	35
Seamen's lodging houses	101
Service	97
Sewers, rat destruction in	127
Shipping companies co-operation	130
Shops Act	xxii
Shop assistants half-holiday	117
Shop closing provisions, weakness	116
Shops Act, 1950, administration	115
Shopkeepers co-operation	117
Short term care	xiii, 72
Sighted industry, blind employment in	88
Sir Robert Jones workshops	xvii, 89
Slaughter of infected cows	152
Slum clearance	xix
Smoke abatement, advisory visits	137
Smoke abatement, approval of new plant	140
Smoke abatement, conclusion	141
Smoke abatement, housewives problems	132
Smoke abatement in industry	139
Smoke abatement in residential areas	140
Smoke abatement, routine inspection	137
Smoke abatement, shipping	129
Smoke and prosperity association	129
Smoke causes	137

INDEX

	Page
Smoke damage to property...	139
Smoke eliminator door on ships	140
Smoke filter, Owen automatic	134
Smoke pollution, air observation	136
Smokeless areas	140
Smokeless area, proposed	130
Spastics	90
Special duties...	105
Specimens, collection	33, 100
Speke clinic	6
Stables...	103
Staff, district nursing	20
Staff, food inspection	143
Staff, maternity and child welfare	5
Staff recruitment	96
Stanley meat market	146
Staphylococcal toxin outbreaks	34, 35
Statistical appendix	2
Step grade incinerator	137
Sterilizing agents	163
Sterilized milk	153
Still-births, ante-natal care	12
Still-births, causes	12
Still-birth rate	2
Stokers conditions	131
Street trading, employment in	115
Sub-letting and sanitary accommodation...	98
Sub-standard premises, good tenants in	104
Sub-standard premises, selling and letting	104
Sulphur gas pollution	135
Summary of inspections	98
Sunday slaughtering	145
Supervision of defectives	69
Supervision of food handlers	159
Supervisors of midwives	13
Suspended matter	135
Temporary accommodation...	xvi, 81
Toddlers' clinic	6
Training of defectives	70
Trichinosis	149
Tuberculosis	viii
Tuberculosis, after care	52
Tuberculosis cases, housing...	xviii, 53
Tuberculosis, death rate	51

PAGE

Tuberculosis notifications 50
Tuberculosis notification methods viii
Tuberculosis patients, employment difficulties ix
Tuberculosis, rehabilitation... 59
Tuberculosis, staff changes ix
Tuberculous milk 152
Typhoid and paratyphoid fevers 28
Typhoid, etc., excretors 29

Unmarried mothers 9

Vaccination ... ...vii, 49
Venereal disease after care ... ... xi, 63
Venereal diseases, clinic liaison 62
Venereal diseases, contact tracing 61
Venereal diseases, patient defaulters 62
Verminous articles 102
Verminous conditions, inspection of premises 166
Visits to food preparing premises 149
Vital statistics i

Washing of beer glasses 163
Water supply... 174
Weil's disease... 121
Welfare foods... ... ... ii, 6, 170
Welfare services ... ...xiv, 70
Westminster House, upgrading ... ...xv, 80
Whooping cough 29
Whooping cough, immunisation ... ... vi, 48
Whooping cough vaccine trial 48
Wilful damage 120
Winter vomiting at a blind school... 44
Work in default 97, 99

Young persons employment 117
Young Persons (Employment) Act, 1938, Part I, administration 115
Young persons, night employment... 118

STATISTICAL APPENDIX.

TABLE 1.

BIRTH STATISTICS.

	LIVE BIRTHS.			STILLBIRTHS.		
	Males.	Females.	Total.	Males.	Females.	Total.
Legitimate ...	7,442	7,041	14,483	212	173	385
Illegitimate ...	401	384	785	10	13	23
	7,843	7,425	15,268	222	186	408

Year	Births	Birth Rate	Illegitimate Births	% of Births
1938	16,175	18·7	771	4·8
1942	13,729	20·5	871	6·3
1943	14,432	21·8	1,030	7·1
1944	15,412	23·1	1,274	8·3
1945	14,784	21·7	1,582	10·7
1946	18,528	25·2	1,351	7·3
1947	19,904	26·4	1,151	5·8
1948	17,695	22·3	1,009	5·7
1949	16,551	20·7	943	5·7
1950	16,110	20·1	968	6·0
1951	15,593	19·9	859	5·5
1952	15,839	20·0	876	5·5
1953	16,022	20·3	873	5·4
1954	15,742	20·5	847	5·4
1955	15,268	19·6	785	5·1

Year	Registered Live Births.	Registered Stillbirths.	Total Births.	Stillbirths per 1,000 Live and Stillbirths.
1935	17,347	749	18,096	41·4
1936	17,403	708	18,111	39·1
1937	16,728	618	17,346	35.6
1938	16,175	639	16,814	38.0
1939	15,614	631	16,245	38.9
1940	15,016	519	15,535	33.4
1941	13,291	508	13,799	36.8
1942	13,729	552	14,281	38.6
1943	14,432	485	14,917	32.5
1944	15,412	492	15,904	30.9
1945	14,784	431	15,215	28.3
1946	18,528	539	19,067	28.3
1947	19,904	514	20,418	25.2
1948	17,695	479	18,174	26.3
1949	16,551	358	16,909	21.2
1950	16,110	375	16,485	22.7
1951	15,593	396	15,989	24.8
1952	15,839	400	16,239	24.6
1953	16,022	394	16,416	24.0
1954	15,742	400	16,142	24·8
1955	15,268	408	15,676	26·0

TABLE 2.

Analysis of causes of Infant Mortality in successive quinquennia 1896-1950, and the years 1951, 1952, 1953, 1954 and 1955.

(A.)—Recorded Deaths.

Years.	1 Total Births.	2 Total Deaths Under 1 Year of Age.	3 General Diseases (excluding Tuberculosis).	4 Tubercular Diseases.	5 Nervous Diseases	6 Respiratory Diseases	7 Digestive Diseases (including Diarrhœa.)	8 Malformations Premature Birth, Marasmus &c.	Ext Cau
1896/1900	111,700	21,160	1,508	698	2,476	3,575	6,376	5,698	8
1901/1905	118,801	20,353	1,546	644	2,516	3,484	5,187	5,732	5
1906/1910	118,313	17,739	1,613	465	2,052	3,146	3,902	5,520	5
1911/1915	111,872	15,458	1,309	345	1,432	2,916	3,635	4,953	4
1916/1920	99,451	11,510	1,116	202	1,083	2,821	1,872	4,107	1
1921/1925	104,217	10,497	1,066	200	573	2,776	1,786	3,764	1
1926/1930	95,701	9,002	978	109	401	2,553	1,670	2,981	
1931/1935	88,644	7,904	902	82	368	2,050	1,184	3,125	
1936/1940	80,936	6,226	573	74	519	1,457	698	2,691	
1941/1945	71,648	5,512	341	71	403	1,704	548	2,193	1
1946/1950	88,788	5,034	311	47	213	1,109	963	2,226	1
1951	15,593	548	21	3	5	118	33	351	
1952	15,839	562	25	2	5	97	30	380	
1953	16,022	569	11	2	8	118	33	377	
1954	15,742	485	15	3	4	79	13	349	
1955	15,268	462	11	—	6	68	23	335	

(B.)—Death Rates per 1,000 Births.

1896/1900	*33·4	189	12·7	6·2	22·1	32·0	57·1	51·0	
1901/1905	33·4	172	13·0	5·5	21·2	29·3	43·7	48·1	
1906/1910	32·2	149	13·6	3·9	17·4	26·6	33·0	46·7	
1911/1915	29·3	137	11·6	3·1	12·8	26·1	32·5	43·1	
1916/1920	24·9	116	11·1	2·0	10·9	28·4	18·8	42·0	
1921/1925	25·1	100	10·2	1·9	5·5	26·6	17·1	36·1	
1926/1930	22·1	94	10·2	1·1	4·2	26·7	17·4	31·1	
1931/1935	20·5	89	10·1	0·9	4·2	23·1	13·4	35·3	
1936/1940	19·4	77	7·0	0·9	6·4	17·9	8·8	32·9	
1941/1945	21·3	78	4·8	1·0	5·6	24·1	7·7	30·7	
1946/1950	22·9	56	3·4	0·5	2·3	12·3	10·5	25·1	
1951	19·9	35	1·3	0·2	0·3	7·6	2·1	22·5	
1952	20·0	35	1·6	0·1	0·3	6·1	1·9	24·0	
1953	20·3	35	0·7	0·1	0·5	7·4	2·1	23·5	
1954	20·5	31	0·9	0·2	0·2	5·0	0·8	22·1	
1955	19·6	30	0·7	—	0·4	4·4	1·5	21·9	

*In column 1 the rates indicate the number of births per 1,000 of the population.

(C.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.

1896/1900	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	1
1901/1905	100·0	91·0	102·3	89·3	95·9	91·5	76·5	94·0	
1906/1910	93·0	78·6	107·1	62·9	78·6	83·1	57·8	91·0	
1911/1915	87·0	72·5	91·9	50·0	57·9	81·5	56·9	84·0	
1916/1920	76·0	61·4	87·4	32·2	49·3	88·7	32·7	82·0	
1921/1925	75·1	54·9	80·3	30·6	24·9	84·7	29·9	70·8	
1926/1930	66·2	49·7	80·3	17·7	18·9	83·5	30·4	60·9	
1931/1935	61·4	47·2	79·5	14·8	18·9	72·2	23·4	69·2	
1936/1940	58·1	40·7	55·1	14·5	29·0	55·9	15·4	64·5	
1941/1945	63·8	41·3	37·8	16·1	25·3	75·3	13·5	62·0	
1946/1950	68·7	29·4	26·9	8·0	10·6	38·5	18·3	48·8	
1951	59·6	18·5	10·2	3·2	1·3	23·7	3·7	44·1	
1952	59·9	18·5	12·6	1·6	1·3	19·0	3·3	47·1	
1953	60·8	18·5	5·5	1·6	2·3	23·1	3·7	46·1	
1954	61·4	16·4	7·1	3·2	0·9	15·6	1·4	43·3	
1955	58·7	15·9	5·5	—	1·8	13·7	2 6	42·9	

TABLE 3

ANALYSIS OF CAUSES OF MORTALITY.

Years.	(a) Infective diseases (less Diarrhœa and Influenza).	(b) Tubercular diseases.	(c) Respiratory diseases (including Influenza).	(d) Digestive diseases (including Diarrhœa).	Total Deaths from (a), (b).(c) & (d)	(e) Cancer.	Total Deaths from all causes.
1871-1880	27,205	19,869	29,763	14,747	91,584	2,015	147,005
1881-1890	19,748	17,870	32,507	13,186	86,311	2,820	146,195
1891-1900	13,515	16,714	35,819	18,491	84,539	4,223	145,522
1901-1910	13,967	16,054	32,995	18,163	81,179	6,480	150,962
1911-1920	10,417	14,946	36,480	12,282	74,125	7,603	137,223
1921-1930	7,831	12,664	29,447	8,184	58,126	9,852	117,756
1931-1940	6,473	9,413	18,196	5,987	40,069	12,619	115,632
1941-1950	2,645	6,987	15,728	4,328	29,723	13,265	98,347
1951	111	449	2,339	310	3,209	1,559	10,648
1952	91	305	1,229	292	1,917	1,591	8,994
1953	69	284	1,142	271	1,766	1,553	8,422
1954	66	244	1,251	275	1,836	1,582	8,946
1955	65	204	1,589	245	2,103	1,601	9,289

Deaths expressed as a percentage of total deaths from all causes (Proportionate Mortality).

1871-1880	19·2	13·5	20·2	10·0	62·9	1·4	100·0
1881-1890	14·1	12·7	23·2	9·4	59·4	2·0	100·0
1891-1900	9·3	10·8	24·6	12·7	57·4	2·9	100·0
1901-1910	8·6	10·6	21·8	12·0	53·0	4·3	100·0
1911-1920	7·9	10·9	27·3	8·9	55·0	5·5	100·0
1921-1930	6·6	10·7	25·0	6·9	49·4	8·4	100·0
1931-1940	5·6	8·1	15·7	5·2	34·7	10·9	100·0
1941-1950	2·6	7·1	15·9	4·4	30·1	13·7	100·0
1951	1·0	4·2	22·0	2·9	30·1	14·6	100·0
1952	1·0	3·4	13·7	3·2	21·3	17·7	100·0
1953	0·8	3·4	13·6	3·2	21·0	18·4	100·0
1954	0·7	2·7	14·0	3·1	20·5	17·7	100·0
1955	0·7	2·2	17·1	2·6	22·6	17·2	100·0

TABLE 4.

DEATHS FROM CANCER

1945—1955

Organs Affected	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	195
Buc. Cavity	40	42	39	43	35	46	44	31	29	46	32
Digestive Organs ...	649	650	610	642	603	651	687	677	620	636	662
Respiratory System ...	160	234	235	252	320	331	344	346	432	383	408
Female Genital Organs ...	102	86	97	97	91	105	110	102	98	93	110
Breast ...	119	126	130	133	107	108	122	120	114	121	117
Other Organs	150	174	203	262	226	315*	218	264	215	252	235
Leukæmia ...	—	—	—	—	—	—	34	51	45	51	37
Total	1,230	1,312	1,314	1,429	1,382	1,556	1,559	1,591	1,553	1,582	1,60

*Including Leukæmia.

TABLE 5.

Maternal Mortality.

Year.	Births Registered.			Maternal Mortality.	
	Live Births.	Stillbirths.	Total Births.	Deaths.	Rate per 1,000 Total Births.
1930	18,881	774	19,655	75	3·81
1931	18,626	722	19,348	55	2·84
1932	18,149	827	18,976	51	2·69
1933	16,929	680	17,609	60	3·41
1934	17,593	685	18,278	51	2·79
1935	17,347	749	18,096	59	3·26
1936	17,403	708	18,111	64	3·52
1937	16,728	618	17,346	40	2·31
1938	16,175	639	16,814	33	1·96
1939	15,614	631	16,245	29	1·86
1940	15,016	519	15,535	31	2·01
1941	13,291	508	13,799	32	2·42
1942	13,729	552	14,281	34	2·38
1943	14,432	485	14,917	34	2·27
1944	15,412	492	15,904	31	1·95
1945	14,784	431	15,215	23	1·51
1946	18,528	539	19,067	19	0·99
1947	19,904	514	20,418	17	0·83
1948	17,695	479	18,174	14	0·77
1949	16,551	358	16,909	9	0·53
1950	16,110	375	16,485	7	0·42
1951	15,593	396	15,989	10	0·62
1952	15,839	400	16,289	7	0·43
1953	16,022	394	16,416	5	0·30
1954	15,742	400	16,142	8	0·49
1955	15,268	408	15,676	9	0·57

TABLE 6.

DISTRICT WORK OF THE HEALTH VISITORS

Visits.	Total.
Visits to expectant mothers	6,296
Visits to infants following notification of birth ...	14,588
Total visits to infants during the 1st year of life ...	59,998
Total visits to infants aged 1 to 5 years	110,133
Visits to children discharged from Hospitals ...	2,292
Visits to cases of infantile diarrhœa	388
Visits to cases of measles of all ages	5,324
Visits to other cases	14,146
Visits to aged persons	662

TABLE 7.

Ante-Natal Clinics.

	1955	1954
Total number of centres at which ante-natal clinics were held ...	25	24
Number of clinic sessions held per week	38	38
Number of new cases attending ante-natal clinics	3,575	4,534
Total attendances at ante-natal clinics	19,447	22,890
Total attendances at post-natal clinics	677	840
Child Welfare Clinics.		
Total number of centres at which child welfare clinics were held...	24	24
Number of clinic sessions per week	48	47
Number of new cases : Under 1 year of age	8,175	8,317
Aged 1-5 years	300	314
Total attendances : Under 1 year of age	75,182	75,216
Aged 1-2 years	7,397	6,971
Aged 2-5 years	7,923	6,424
Total under 5 years	90,502	88,611

TABLE 8.

NEONATAL DEATHS—TOTAL 306 + 3 INWARD TRANSFERS. CLASSIFICATION.

Cause of Death.	Full-time Total.	Birth weight 5½ lbs. or less.	Other signs of Immaturity.	Total.	Total Deaths.
Birth injury	27	25	7	32	59
Post-natal asphyxia and atelectasis	11	16	11	27	38
Pneumonia	18	8	3	11	29
Septicæmia	1	0	0	0	1
Hæmolytic disease	7	0	0	0	7
Erythroblastosis fœtalis ...	3	3	0	3	6
Hydrops fœtalis	0	0	1	1	1
Sclerema	0	1	0	1	1
Coma	1	0	0	0	1
Peritonitis	0	0	1	1	1
Immaturity	0	92	16	108	108
Congenital Malformations ...	26	15	7	22	48
Violence	4	0	0	0	4
Hernia...	1	1	0	1	2
Totals	99	161	46	207	306

Cause of Death.	Age.	Social Class. (R.G.).	Parity.	Gestation weeks.	Delivered.		Died.		Previous Health.	Child.	Delivery.	Lab. in hrs.	Death Post Partum.	Anaesthetic.	Period of Pregnancy on booking (weeks).		
					Home.	Hosp.	Home.	Hosp.							RMP.	Mid.	Hosp.
SEPSIS.																	
General Peritonitis following infection of genital tract ...	28	IV	5	40	x			x	Poor	Normal 7lb. 4ozs.	Normal	15	23 days	Nil	16	20	
Sepsis, L.U.S.C.S., P.P., Pneumonia & Pleural Effusion. Staph. Septicaemia ...	36	III	4	39		x		x	Broncho-Pneumonia	Normal 6lb. 6ozs.	L.U.S.C.S.	16	25 days	Local	9		9
Septicaemia, Abortion ...	36	IV	3	12	x		x		Poor	Abortion	Abortion	—	—	Nil	Not b	ooked	
PULMONARY EMBOLISM.																	
Pulmonary Embolism following pelvic venous thrombosis ...	24	IV	2	40		x	x		Vaginal prolapse.	Normal 7lb. 7ozs.	Normal	9	18 days	General	Not k	nown	
Pulmonary Emb. Deep Venous Thrombosis. 26 days P.P. Tb. Adenitis of neck	26	IV	4	40		x		x	TB Adenitis of neck.	Normal 6lb.	Normal	17	26 days	Nil	Not k	nown	

TABLE 10.

DEATHS DUE TO PREGNANCY AND CHILD BEARING.

Cause of Death.	Age.	Social Class. (R.G.).	Parity.	Gestation weeks.	Delivered.		Died.		Previous Health.	Child.	Delivery.	Lab. in hrs.	Death Post Partum.	Anaesthetic.	Period of Pregnancy on booking (weeks).		
					Home.	Hosp.	Home.	Hosp.							RMP.	Mid.	Hosp.
HAEMORRHAGE. Shock. P.P.H. Pul. Tb.	43	V	8	39		x		x	Quiest. Pul. Tb. pre eclamptic Tox. Rhve with antibodies	S.B. Foetal Ascites Rh incompat.	Low forceps	17	2 hours	Local			16
Acute P.& P.P.H. Central PP.	33	IV	5	28		x		x	Satisfactory	Prem. 28 wks. Died at 12½ hrs.	L.U.S.C.S.		3 hours	Curare Nitrous Oxide Oxygen	10		18
TOXAEMIA. Hepatic Necrosis Infective Hepatitis and Pregnancy.	25	IV	1	40		x		x	Satisfactory	S.B. 7lb. 11ozs.	Induced Forceps	31	9 hours	Local	14		
Haemo Pericardium Dissect. Aneurysm of Aorta Hypertension.	30	III	3	26				x	Severe chronic Hypertension	Twins Undelivered				Nil	18		
Eclampsia ...	22	III	1	42		x		x	Satisfactory	White Asphyxia. Died 1 hr.	Forceps	40	During delivery	Ethyl Chloride Ether	9		10

TABLE 11.

DEATHS DUE TO ASSOCIATED CONDITIONS.

Cause of Death.	Age.	Social Class. (R.G.).	Parity.	Gestation weeks.	Delivered.		Died.		Previous Health.	Child.	Delivery.	Lab. in hrs.	Death Post Partum.	Anaesthetic.	Period of Pregnancy on booking (weeks)		
					Home.	Hosp.	Home.	Hosp.							RMP.	Mid.	Hosp.
MITRAL STENOSIS																	
Mitral regurgitation. Acute Cardiac failure. Pregnancy.	20	IV	2	35		x		x	Mitral Stenosis	Alive Prem. 3 lb. 10 ozs.	Normal	10½	6 days.	Nil	11		20
Chronic Rheumatic Endocarditis. Acute Rheumatic Endocarditis. Mitral Valvotomy superimposed pregnancy.	27	IV	2	33		x		x	Mitral Stenosis	Alive Prem. 4 lb. 1oz.	P.M. Caes. Sect.	—	10 mins. before delivery.	Nil			24
CARCINOMA OF LUNG																	
Cerebral Secondaries. Carcinoma of Lung.	32	III	5	24	Undelivered			x	Congenital Syphillis.	—	Undelivered	—	—	—	12	20	

TABLE 12.

NEONATAL DEATHS—ANTE-NATAL CARE.

Ante-Natal Care.	Total.
HOSPITAL only	66
Hospital and General Practitioner	99
Hospital and Local Authority	23
Hospital and Liverpool Maternity Hospital District	2
Hospital, Local Authority and General Practitioner	9
Hospital, Local Authority and Liverpool Maternity Hospital District ...	1
GENERAL PRACTITIONER and Midwife	81
General Practitioner and Local Authority Clinic...	2
LOCAL AUTHORITY CLINIC only	10
No data	5
No ante-natal care	8
Total	306

TABLE 13.

STILLBIRTHS—DELIVERY OF CASES.

Liverpool Maternity Hospital ...	43
Sefton General Hospital	74
Walton Hospital	38
Broadgreen Hospital	46
Mill Road Hospital	121
Liverpool Royal Infirmary	1
Own Home	62
Nursing Home	5
Ambulance	1
TOTAL	391

TABLE 14.

CAUSES OF STILLBIRTH—INTERNATIONAL CLASSIFICATION.

Cause.	Domiciliary, Nursing Home, and Ambulance.	Hospital.	Total.
Maternal Syphilis	0	2	3
,, ,, old infection W.R. Neg....	0	1	
,, Influenza	1	0	1
,, Anæmia	1	0	1
Hæmorrhage	4	63	67
Eclampsia	0	4	4
Pre eclamptic toxæmia	5	27	32
,, ,, ,, twins	2	0	2
Infective Hepatitis	0	1	1
Hypertension	0	14	14
Transverse lie	0	1	1
Breech presentation	6	6	12
,, with contraction ring	0	1	1
,, with contracted pelvis	0	1	1
Brow—forceps delivery	0	1	1
Forceps delivery	0	6	6
Ruptured uterus	0	1	1
Prolonged labour	1	0	1
Overwork	1	0	1
Cord round neck	5	8	13
Prolapse cord	2	10	12
True knot cord	0	2	2
Rupture of cord	0	1	1
Placental insufficiency	3	10	13
Placental infarcts	0	2	2
Placenta calcified	0	1	1
Rupture of placental vessels	0	1	1
Placenta prævia	0	9	9
Bicornuate uterus	0	4	4
Intracranial hæmorrhage	2	11	13
Anencephalic	3	42	45
Hydrocephalic	1	12	13
Spina bifida	2	4	6
Iniencephalic	0	3	3
Micrognathia	0	1	1
Mongol	0	1	1
Interventricular Septal defect...	0	1	1
Renal Agenesis	0	1	1
Imperforate anus	1	0	1
Achondroplasia	0	1	1
Non specified multiple malformations ...	2	1	3
Intra uterine fœtal pneumonia	0	1	1
Erythroblastosis	1	14	15
Maceration—no other sign	21	40	61
Maceration, 2nd twin	0	2	2
Atelectasis primary	0	1	1
Atelectasis inspiration amniotic fluid ...	0	1	1
Intra uterine asphyxia	4	3	7
Suffocation	1	0	1
Stillborn	0	4	4

TABLE 15.

MIDWIVES ENGAGED IN BOTH DOMICILIARY AND INSTITUTIONAL PRACTICE AT THE END OF THE YEAR.

	Domiciliary Midwives.	Midwives in Institutions.	Total.
Midwives employed by the Authority	55	—	55
Midwives employed by Hospital Management Committees or Boards of Governors under the National Health Service Act :— Under arrangements with the Local Health Authority in pursuance of Section 23 of the National Health Service Act, 1946	12	215	227
Midwives in private practice (including midwives employed in nursing homes)	12	11	23
Totals	79	226	305

TABLE 16.

ANALYSIS OF CONFINEMENTS.

	Domiciliary Cases.				Totals.	Cases in Institutions.
	Doctor not booked.		Doctor booked.			
	Doctor present at time of delivery.	Doctor not present at time of delivery.	Doctor present at time of delivery (either the doctor booked or another).	Doctors not present at time of delivery.		
Midwives employed by Hospital Management Committees or Boards of Governors under the National Health Service Act...	0	308	16	515	839	12,730
Midwives in private practice (including midwives employed in nursing homes) ...	0	5	17	1	23	313
Midwives employed by the Local Authority						
Year 1954 ...	24	1,017	357	2,412	3,810	
Year 1955 ...	18	753	328	2,739	3,838	

TABLE 17.

ANALGESIA.

	Year.	Doctor present at delivery.	Doctor not present at delivery.	Total.
Liverpool Maternity District Homes (Six).				
Gas/Air	1953	18	778	796
	1954	18	840	858
	1955	10	699	709
Pethidine	1953	18	596	614
	1954	13	532	545
	1955	8	535	543
Municipal Midwives.				
Gas/Air	1953	344	2,430	2,774
	1954	322	2,511	2,833
	1955	392	2,696	3,088
Pethidine	1953	233	1,455	1,688
	1954	218	1,688	1,906
	1955	248	2,179	2,427

TABLE 18.

HOME NURSING EQUIPMENT—ANNUAL LOANS.

Equipment	1952	1953	1954	1955
Air Beds	14	21	26	13
Air Rings	50	133	255	356
Back Rests	64	127	265	401
Bed Cradles	0	7	30	42
Bed Pans	63	117	259	345
Commodes	4	24	54	62
Dunlopillo Mattresses	23	37	55	61
Foam Rings	0	0	0	25
Lifting Poles	15	12	16	23
Mackintosh Sheets	53	83	170	331
Nelson Beds	28	40	33	17
Urinals	22	43	79	131
Wheel Chairs	32	102	132	133
Female Urinals	0	0	0	8
Totals	368	746	1,374	1,948

TABLE 19.

DISTRICT NURSES VISITS TO CHILDREN UNDER ONE YEAR
ANALYSIS OF DISEASES.

Illness.	Cases		Visits.
	0-1 mth.	1 mth.-1 yr.	
Abscesses	—	21	145
Abscess of Buttock	2	—	12
Boils	—	6	27
Bronchitis	8	272	1,831
Burns	—	5	46
Constipation	1	5	24
Circumcision	2	22	193
Conjunctivitis	—	6	29
Cervical Adenitis	—	6	39
Discharging Eyes	6	—	47
Eczema	—	1	76
Gastro Enteritis	—	8	39
Hæmorrhagic Disease	1	—	2
Impetigo	—	5	25
Lachrymal Abscess	—	3	20
Mastitis	4	1	37
Measles	—	7	42
Ophthalmia Neonatorum	2	—	12
Otorrhœa	—	9	54
Otitis Media	2	146	750
Pemphigus	2	—	24
Pneumonia	2	132	937
Pyrexia (undiagnosed)	—	4	17
Protruding Umbilicus	4	—	24
Removal of Naevus	—	1	21
Scalds	—	4	25
Septic Spots	7	7	254
Septic Fingers	5	—	29
Septic Umbilicus	2	1	14
Stomatitis	3	30	170
Spina Bifida	8	6	454
Undiagnosed Respiratory Infection	—	18	87
Whooping Cough	—	9	54
Totals	61	735	5,560

TABLE 20.

DISTRICT NURSING—MINOR AILMENTS CLINIC.

Disease.	Cases.	Attendances.
Salpingitis	2	6
Diabetic	27	4,027
Rheumatoid Arthritis	1	11
Carcinoma Breast	2	30
Anæmia	46	613
Pelvic Infection	4	16
Septic Spots	2	25
Herpes Zoster	1	9
Neuralgia	1	13
Neuritis	1	14
Cystitis	1	5
Tuberculous Kidney	1	3
Bronchitis...	13	66
Asthma	1	26
Laryngitis...	2	9
Tuberculosis	3	150
Discharging Eyes	3	22
Keratitis	1	12
Quinsey	2	6
Sinusitis	45	416
Tonsillitis	11	39
Otitis Media	15	59
Otorrhœa	2	5
Septic Jaw	1	3
Septic Tooth Sockets	4	14
Pre Dental Extraction Treatment	1	6
Removal Wax from Ear	1	1
Boils	93	397
Abscesses	15	56
Septic Hands, Fingers, Legs	25	86
Breast Abscesses	6	27
Total	333	6,172

Treatments Given in Respect of the above.

(*a*)	Injections—	
	Insulin	4,025
	Hæmaten	643
	Penicillin	974
	Streptomycin	181
	Others	327
(*b*)	Dressings	21
(*c*)	Syringing of Ears	1
		6,172

TABLE 21.

NUMBER OF CASES OF CERTAIN INFECTIOUS DISEASES REPORTED DURING 1955.

	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Scarlet Fever ...	71	42	39	45	40	43	21	12	35	56	77	47	528
Measles and German Measles	931	936	946	840	791	641	428	185	87	72	75	81	6,013
Diphtheria	—	—	—	—	1	—	—	—	—	—	—	—	1
Cerebro-spinal Fever	8	3	6	5	—	1	3	1	3	1	—	—	31
Poliomyelitis Paralytic	3	1	—	—	1	5	8	11	5	1	2	1	38
Non-paralytic ...	—	—	—	—	—	—	1	4	1	1	1	—	8
Pneumonia & Influenzal Pneumonia	76	59	81	55	38	33	14	15	17	30	34	65	517
Dysentery	59	43	114	120	142	120	51	36	32	63	91	49	920
Whooping Cough ...	239	208	235	191	229	261	358	312	152	76	99	130	2,490
Food Poisoning ...	3	5	9	8	9	40	89	79	31	26	183	62	544

TABLE 22.

County Borough of Liverpool, 1955.

Food Poisoning.

1st Quarter	2nd Quarter.	3rd Quarter.	4th Quarter.	TOTAL
17	57	199	271	544

Outbreaks due to Identified Agents.

Outbreaks due to :—	Total Outbreaks.	Total Cases.
(*a*) Chemical poisons	—	—
(*b*) Salmonella organisms	2	49
(*c*) Staphylococci (inc. toxin)	5	216
(*d*) C.I. Botulinum	—	—
(*e*) Other bacteria	—	—
	7	265

Outbreaks due to Undiscovered Cause.

Total outbreaks—nil. Total cases—nil.

Single Cases.

Agent identified.	Unknown cause.	Total cases.
279	—	279

TABLE 23.

NUMBER OF NEW CASES OF TUBERCULOSIS FOR 1955.

Age Periods	Under 5 yrs.	5-14 yrs.	15-24 yrs.	25-44 yrs.	45-64 yrs.	65 yrs. & over	Total	Total Respiratory
Respiratory—								
Males	26	37	93	226	197	54	633	1,082
Females ...	23	45	152	172	48	9	449	
Meninges and C.N.S.								Total Non-respiratory
Males	5	3	—	—	—	—	8	118
Females ...	7	6	2	—	—	—	15	
Other Forms—								
Males	5	8	10	13	14	3	53	
Females ...	7	6	10	13	4	2	42	

TABLE 24.

AGE PERIODS OF DEATHS FROM TUBERCULOSIS DURING 1955.

Age Periods.	Respiratory		Meninges and C.N.S.		Other Forms	
	Males.	Females.	Males.	Females	Males.	Females.
0—	—	—	—	—	—	—
1—	—	—	2	2	—	1
5—	—	—	1	1	—	—
10—	—	2	—	—	—	—
15—	—	—	—	—	—	—
20—	1	2	—	—	1	—
25—	12	22	—	—	1	1
35—	12	14	—	—	2	—
45—	30	11	—	—	2	2
55—	34	5	—	—	—	1
65—	32	8	—	—	1	1
Totals ...	121	64	3	3	7	6

TABLE 25.

DEATHS FROM RESPIRATORY TUBERCULOSIS.

Years.	Cases notified.	Case rate per 1,000 population.	Number of deaths.	Death rate per 1,000 Liverpool.	Death rate per 1,000 England and Wales.
1946	1,478	2·01	579	0·79	0·46
1947	1,479	1·96	599	0·79	0·47
1948	1,618	2·04	630	0·79	0·44
1949	1,619	2·02	542	0·68	0·40
1950	1,572	1·96	481	0·60	0·32
1951	1,531	1·95	406	0·52	0·27
1952	1,569	1·08	269	0·34	0·21
1953	1,382	1·75	258	0·33	0·18
1954	1,135	1·44	232	0·29	0·16
1955	1,082	1·39	185	0·24	0·13

TABLE 26.

DEATHS FROM NON-RESPIRATORY TUBERCULOSIS.

Years.	Cases notified.	Case rate per 1,000 population.	Number of deaths.	Death rate per 1,000 Liverpool.	Death rate per 1,000 England and Wales.
1946	237	0·32	79	0·10	0·08
1947	234	0·31	85	0·11	0·09
1948	228	0·29	85	0·11	0·07
1949	211	0·26	68	0·08	0·05
1950	164	0·20	64	0·08	0·04
1951	160	0·20	43	0·05	0·04
1952	139	0·17	36	0·04	0·03
1953	123	0·16	26	0·03	0·02
1954	147	0·19	12	0·01	0·02
1955	118	0·15	19	0·02	0·01

TABLE 27.

Diagnosis	Respiratory			Non-Respiratory			Total			Grand Total
	Adults.		Children	Adults.		Children	Adults.		Children.	
	M.	F.		M.	F.		M.	F.		
—New Cases examined during the year (excluding contacts): (Definitely Tuberculous)	515	334	118	28	27	41	543	361	159	1,063
—Contacts examined during the year :										
(a) Definitely tuberculous ...	11	27	25	—	—	1	11	27	25	63
(b) Diagnosis not completed ...	11	20	121	—	—	—	11	20	121	152
(c) Non-tuberculous	353	752	2,242	—	—	—	353	752	2,242	3,347
—Cases written off the Dispensary Register as Recovered	133	113	28	24	32	20	157	145	48	350
—Number of Cases on Dispensary Register on Dec. 31st 1955 :—										
(a) Definitely tuberculous ...	3,882	3,663	934	297	329	358	4,179	3,992	1,292	9,463
(b) Diagnosis not completed ...	—	—	—	—	—	—	26	22	10	58

Number of attendances of patients at the Dispensaries during the year 1955 ...	42,351	Number of patients under medical treatment at home on 31st December, 1955...	672
Number of visits paid by the Tuberculosis Medical Officer to the homes of patients during 1955	2,150	Number of T.B. "plus" cases on Dispensary Register on 31st December, 1955...	3,846
Total number of cases vaccinated with B.C.G. during 1955 :— Children ... ... 1,704; Others 34	1,738	Total number of visits paid to the homes of patients by Tuberculosis Visitors during 1955	26,724

TABLE 28.

Disease.	Reasons for non-notification.						
	No. of Deaths.	No. of cases not notified before death.	Diagnosis made at a post-mortem examination. (Includes Coroner's Cases.)	Diagnosis delayed owing to clinical difficulties.	Doctor thought case had been notified by another Practitioner.	Notification forgotten.	Patient died before notification could be effected.
spiratory	185	7	1	3	1	—	2
n-Respiratory ...	19	1	—	—	—	—	1

TABLE 29.

VENERAL DISEASES CONTACT NOTIFICATION STATISTICS.

	Notifications	Individuals
No. of notifications received	212	—
No. of cases traced and interviewed	55	32
No. of cases traced, not yet interviewed	7	3
No. of cases who reported for investigation	54	31
No. of cases in which information was passed on to other Authority	9	1
No. of cases already in the Register of a Liverpool Clinic ...	7	7
No. of cases untraced, due mainly to insufficient information...	141	—
No. of cases who refused to attend for investigation	—	—

TABLE 30.

VENEREAL DISEASES RESULTS OF CORRESPONDENCE.

	Male	Female	Con-genital	Total
No. of cases written to	845	987	125	1,957
No. of letters despatched	971	1,975	150	3,096
No. of cases reporting after receipt of letter... ...	386	574	104	1,064
No. of letters returned—Dead Letter Office ...	72	110	1	183
No. of cases traced and transferred	5	7	2	14

TABLE 31.

VENEREAL DISEASES RESULTS OF HOME VISITING.

	Male	Female	Congenital	Total
No. of cases visited	334	401	48	783
No. of visits made	853	1,507	172	2,532
No. of cases attending following visits	176	228	35	439
No. of cases promising to attend but failing to do so	34	46	6	86
No. of cases removed, or not known at address given	55	64	—	119
No. of cases not contacted, no access, away from home, etc.	49	48	2	99
No. of cases who refused to re-attend	14	13	—	27
No. of cases removed to other districts, and trans. for follow-up	6	10	5	21
No. of cases deceased	—	—	—	—

TABLE 32.

VENEREAL DISEASES ANTE-NATAL CLINIC REFERENCES.

	Early Syphilis	Late Syphilis	Acute Gonorrhoea	Non Venereal
Cases referred by ante-natal clinics found to be suffering from	1	*10	5	18

*Of this total, four had previously received a/s treatment.

TABLE 33

Residential Accommodation.

The total accommodation available for use on 31st December, 1955, was as follows:—

	Beds
Westminster House	879
Aigburth House	52
Beechley	43
Brookfield	19
Holt House	58
Lismore	36
Moreno House	36
New Grafton House	88
New Parkfield House	27
Park House	20
	1,258

TABLE 34.

PARTICULARS OF PERSONS ADMITTED TO RESIDENTIAL ACCOMMODATION AND DESCRIPTION OF THE PREMISES FROM WHICH THEY WERE ADMITTED.

1955	1		2	3	4	5	Total
	Vacated House		Flat	Living with Relatives	One Room	Misc. Lodings Res. Accomm. etc.	
January ...	6		3	6	9	6	30
February ...	5		2	9	6	5	27
March ...	7		1	12	10	16	46
April	12		5	18	13	13	61
May	8		5	11	14	11	49
June	7		—	7	3	3	20
	1	1A					
	Private	Corpn.					
July	2	—	2	10	7	12	33
August ...	2	—	—	5	2	2	11
September ...	—	—	1	11	5	6	23
October ...	—	—	1	5	11	15	32
November ...	—	—	—	6	1	3	10
December ...	1	—	2	5	6	10	24
TOTAL ...	50		22	105	87	102	366

TABLE 35.

AGED PERSONS MAINTAINED IN ESTABLISHMENTS PROVIDED BY OTHER LOCAL AUTHORITIES AND BY VOLUNTARY ORGANISATIONS. STATEMENT OF ADMISSION, DISCHARGES AND DEATHS.

Authority or Organisation	Remaining 31.12.54	Admitted	Discharged	Died	Remaining 31.12.55
British Legion Home, Ripon ...	3	1	1	1	2
Christadelphian Homes, Southport	—	1	—	—	1
Church Army Home, Bootle ...	2	1	—	—	3
Convent of the Good Shepherd, Liverpool	8	—	—	2	6
52/4 Croxteth Road, Liverpool (Old People's Hostels Association)	6	2	2	—	6
"Maryland," Formby	2	1	1	—	2
Methodist Home, Liverpool ...	9	4	4	—	9
Methodist Home, Colwyn Bay ...	—	1	—	—	1
Pentecostal Eventide Home, Bakewell	1	—	1	—	—
Red Cross Home, Portmadoc ...	1	—	—	—	1
Redhill Bethesda Home	1	—	—	—	1
St. Anne's Convent, Doncaster ...	—	1	1	—	—
Salvation Army Home, Bootle ...	10	—	1	2	7
Salvation Army Home, Liverpool	14	6	3	3	14
Salvation Army Home, Penketh	2	—	—	—	2
Salvation Army Home, West Kirby	—	1	—	—	1
Salvation Army Home, Wicksted	1	—	—	1	—
25 Sefton Drive, Liverpool (Old People's Hostel Association) ...	11	6	4	—	13
"Stapely," Home for Aged Jews, Liverpool	17	17	10	2	22
"Sundale," Linnet Lane, Liverpool	3	—	1	—	2
Turner Memorial Home, Liverpool	19	8	5	2	20
W.V.S. St. Michael's Mount, Liverpool	9	4	4	2	7
Bristol Corporation	1	—	—	—	1
Croydon Corporation	1	—	—	—	1
Portsmouth Corporation	1	—	—	—	1
West Ham Corporation	1	—	—	1	1
Cumberland County Council ...	1	—	—	—	1
Flintshire County Council ...	1	—	—	—	1
Glamorganshire County Council	1	—	—	—	1
Lindsey County Council	1	—	—	—	1
London County Council	—	1	1	—	—
Staffordshire County Council ...	1	—	—	—	1
Warwickshire County Council ...	1	1	2	—	—
TOTALS	129	56	41	16	128

TABLE 36.

TEMPORARY ACCOMMODATION PROVIDED UNDER SECTION 21 (1) (b) OF THE NATIONAL ASSISTANCE ACT.

Establishment	Remaining 31/12/54	Admitted	Discharged	Remaining 31/12/55
Lower Breck Road	42	972	956	58
St. Hilda's Hostel	4	—	4	—
TOTALS	46	972	960	58

TABLE 37.

Welfare Visitors.

The following Table includes details of some of the work of the Welfare Visitors and the Property Officer during the year.

Number of personal applications for advice and help ...	268
Number of visits paid (including 28 visits to handicapped persons)	2,312
Number of re-visits (including 4 re visits to handicapped persons)	6,919
Number of persons admitted to :—	
(*a*) residential accommodation	366
(*b*) hospital	82
Number of visits in connection with the protection of the property of persons admitted to hospital etc., and the effects of deceased persons with no known relatives ...	1,192
In addition, requests for assistance, either by letter or telephone, during the year numbered	1,661

TABLE 38.

The following table shows the number of registered blind persons in Liverpool :—

Age	Males	Females	Total
0	—	—	—
1	1	—	1
2	—	5	5
3	3	5	8
4	2	2	4
5—10	11	12	23
11—15	5	6	11
16—20	9	13	22
21—30	43	23	66
31—39	45	37	82
40—49	73	78	151
50—59	129	85	214
60—64	75	87	162
65—69	89	120	209
70 and over ...	213	510	723
TOTALS ...	698	983	1,681

TABLE 39.

The following table shows the number of registered partially-sighted persons in Liverpool :—

Age Groups	Males	Females	Total
0— 1	1	—	1
2— 4	1	—	1
5—15	39	27	66
16—20	8	14	22
21—49	13	7	20
50—64	14	21	35
65 and over ...	27	77	104
TOTALS ...	103	146	249

TABLE 40.

FOLLOW-UP OF REGISTERED BLIND AND PARTIALLY SIGHTED PERSONS

	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Other
(i) Number of cases registered during the year in respect of which Section F of Form B.D.8 recommends :—				
(a) No treatment	22	15	1	54
(b) Treatment (medical, surgical or optical)	36	27	1	45
(ii) Number of cases at (i) (b) above which on follow-up action have received treatment	15	21	1	36

TABLE 41.

HANDICAPPED PERSONS MAINTAINED IN ESTABLISHMENTS PROVIDED BY VOLUNTARY ORGANISATIONS.

STATEMENT OF ADMISSIONS, DISCHARGES AND DEATHS.

Organisation	Remaining 31.12.54	Admitted	Discharged	Died	Remaining 31.12.55
Catholic Blind Institute, Liverpool	17	4	3	1	17
Herefordshire County Assn. for the Blind	1	—	—	—	1
Jewish Blind Home, Surrey.....	2	—	—	—	2
Manchester & Salford Blind Aid Society	1	—	—	—	1
Royal National Institute for the Blind, Hoylake	1	—	—	—	1
David Lewis Epileptic Colony...	4	7	4	—	7
Langho Epileptic Colony	23	7	10	1	19
Maghull Homes for Epileptics...	42	12	10	1	43
St. Elizabeth's Home for Epileptics, Much Hadham ...	2	—	—	—	2
Cotebrook Home for Cripples...	1	—	—	—	1
Hostels for Invalid Women, London	1	—	—	—	1
National Spastics Society ...	—	1	—	—	1
Ernest Ayliffe Home for the Deaf	1	1	—	—	2
National Institute for the Deaf, Barrowford.....	1	—	—	—	1
National Institute for the Deaf, Bath	1	—	—	—	1
TOTALS	98	32	27	3	100

TABLE 42.

AWARDING OF POINTS FOR MEDICAL CONDITIONS OTHER THAN TUBERCULOSIS.

Housing Points Scheme.

SUMMARY OF ANNUAL STATISTICS FOR THE YEAR ENDED 31ST DECEMBER, 1955

	Nos. Dealt With	Nos. Awarded Points	Nos. Awarded No Points
RESPIRATORY SYSTEM—			
Bronchitis	510	218	292
Asthma	195	97	98
Bronchiectasis	106	97	9
Pneumoconiosis	1	1	—
CARDIOVASCULAR SYSTEM—			
Heart Failure	124	123	1
Acute Rheumatic Fever	27	26	1
Angina	28	27	1
Coronary Thrombosis	53	52	1
Hypertension	112	94	18
Valv. Disease of Heart	182	171	11
VEINS—			
Varicose Ulcer	7	3	4
Varicose veins	11	2	9
BLOOD DISEASES—			
Pernicious Anaemia	8	8	—
Others	42	7	35
DIGESTIVE SYSTEM—			
Gastric Ulcer	94	22	72
Ulcerative Colitis	9	7	2
Diabetes	20	16	4
GENITAL URINARY SYSTEM—			
Nephritis	11	9	2
Nephrosis	5	4	1
Enlarge Prostate	—	—	—
FEMALE GENITO URINARY SYSTEM—			
Cystocele	—	—	—
Prolapse	—	—	—
ENDOCRINE SYSTEM—			
Thyrotoxicosis	20	4	16
C.N.S.			
Dissem. Sclerosis	12	11	1
Other types of Paralysis	56	51	5
Epilepsy	55	23	32
MUSCULO SKELETAL SYSTEM—			
Arthritis	155	114	41
Muscular dystrophy	8	8	—
Spondylitis	6	6	—
MENTAL DISEASES—			
Anxiety State	352	133	219
Neurasthenia	202	33	169
Mental Defectives	27	15	12
OTHERS	1,122	212	910
OVERCROWDING ONLY	400	—	400
TOTALS	3,960	1,594	2,366

No. of above cases referred to Chief Sanitary Inspector, 619.

TABLE 43.

Housing Points Scheme.

NUMBER OF MONTHLY CASES OF TUBERCULOSIS DEALT WITH DURING 1955.

Month	Pulmonary	Non-Pulmonary
January	—	—
February	72	—
March	85	1
April	64	10
May	96	7
June	96	9
July	102	1
August	85	3
September	71	7
October	67	5
November	38	6
December	4	—
TOTAL ...	780	49
GRAND TOTAL		829

Approximately 90% of these 829 cases of tuberculosis were awarded a total o 5 points.

TABLE 44.

SLUM CLEARANCE

(Statistical Details)

During the year six Public Inquiries and two Hearings were held involving 17 areas comprising 1,438 houses, 1,003 houses were represented and 34 Confirmation Orders were made in respect of 1,930 dwellinghouses.

COMPULSORY PURCHASE ORDERS AND CLEARANCE ORDERS CONFIRMED IN 1955

Date of Confirmation.	Orders.	Houses.	Population.
13.1.55	Roscommon Street No. 1 Clearance Area. Compulsory Purchase Order	9	34
14.1.55	Roscommon Street No. 2 Clearance Area. Compulsory Purchase Order	24	72
2.2.55	Torr Street No. 3 Clearance Area. Compulsory Purchase Order	17	98
2.2.55	St. James Street No. 3 Clearance Area. Clearance Order	5	25
24.2.55	Beaufort Street No. 7 Clearance Area. Clearance Order ...	2	8
3.3.55	Furlong Street Clearance Area. Compulsory Purchase Order	24	123
3.3.55	Mann Street Clearance Area. Clearance Order	16	58
3.3.55	Grafton Street No. 2 Clearance Area. Clearance Order ...	22	92
2.4.55	Paddington No. 2 Clearance Area. Compulsory Purchase Order	239	1,115
15.4.55	Bembridge Street No. 1 Clearance Area. Compulsory Purchase Order	114	391
15.4.55	Ennerdale Street No. 1 Clearance Area. Clearance Order	5	17
15.6.55	Smithy Lane, Walton, Clearance Area. Clearance Order	9	22
15.6.55	Newsham Street Clearance Area. Clearance Order. ...	8	43
20.6.55	Mill Street No. 11 Clearance Area. Clearance Order ...	6	38
22.6.55	Canterbury Street No. 1 Clearance Area. Clearance Order	3	11
22.6.55	Canterbury Street No. 2 Clearance Area. Clearance Order	5	16
22.6.55	Canterbury Street No. 3 Clearance Area. Clearance Order	12	73
25.7.55	Holborn Street No. 2 Clearance Area. Compulsory Purchase Order	6	18
26.7.55	Great Orford Street No. 2 Clearance Area. Compulsory Purchase Order	3	12
26.7.55	Garibaldi Street Clearance Area. Compulsory Purchase Order	127	528
28.7.55	Holborn Street No. 3 Clearance Area. Compulsory Purchase Order	7	10
28.7.55	Reading Street No. 1 Clearance Area. Compulsory Purchase Order	162	789

TABLE 45.

Compulsory Purchase Orders and Clearance Orders confirmed in 1955 (*continued*)

Date of Confirmation.	Orders.	Houses.	Population.
12.8.55	Chester Street No. 2 Clearance Area. Compulsory Purchase Order	38	284
12.8.55	Swan Street Clearance Area. Compulsory Purchase Order	38	146
18.8.55	Stanhope Street No. 1 Clearance Area. Compulsory Purchase Order	3	10
13.9.55	Canterbury Street No. 1 Clearance Area. Compulsory Purchase Order	319	1,455
15.9.55	Northumberland Street No. 4 Clearance Area. Compulsory Purchase Order	4	10
16.9.55	Great Orford Street No. 1 Clearance Area. Compulsory Purchase Order	164	871
26.9.55	Goring Street Clearance Area. Compulsory Purchase Order	188	895
20.10.55	Wellington Terrace No. 1 Clearance Area. Compulsory Purchase Order	13	49
26.10.55	Holborn Street No. 1 Clearance Area. Compulsory Purchase Order	105	485
1.11.55	Windsor Street No. 3 Clearance Area. Compulsory Purchase Order	23	173
1.12.55	Christopher Street Clearance Area. Compulsory Purchase Order	79	305
12.12.55	Ashfield Cottages Clearance Area. Compulsory Purchase Order	131	406
		1,930	8,682

TABLE 46.

CLEARANCE AREAS IN ABEYANCE

Area	Houses	Population
Rose Vale No. 1	376	1,620
Boundary Street (Peel Terrace)	10	40
Tetlow Street No. 2	12	34
Haddock Street No. 2	4	15
Every Street	122	442
Rose Vale No. 2	243	1,042
Rose Vale No. 3	95	416
Boundary Street No. 2	12	81
Pine Street	8	51
Watmough Street No. 2	4	12
Cubbin Street	59	267
Totals	945	4,020

TABLE 47.

PROGRESSIVE SUMMARY OF SLUM CLEARANCE

Year	No. of houses represented	No. of houses confirmed	No. of houses demolished	No. of persons rehoused
1946	—	—	374	1,396
1947	35	—	485	2,540
1948	65	100	260	1,299
1949	373	93	161	678
1950	39	267	327	1,536
1951	—	32	207	943
1952	524	—	408	2,099
1953	1,740	358	518	2,828
1954	1,676	844	579	2,702
1955	1,003	1,930	622	2,541
	5,455	3,624	3,941	18,562

DEMOLITION ORDERS

During the year, 92 individual houses were represented as being unfit for human habitation within the meaning of Section 11 of the Housing Acts, 1936/54 which were dealt with as follows:—

Demolition Orders made	59
Undertakings given not to use for human habitation	1
Undertakings cancelled after premises have been rendered fit	2
Number of representations still to be considered	23
Number of houses demolished by the owner	92

CLOSING ORDERS

Number of Closing Orders made under Section 10 of the Local Government (Miscellaneous Provisions) Act, 1953	64
Number of separate tenements and underground rooms in respect of which Closing Orders were made	12
Number of representations still be be considered	6

TABLE 48.

TYPES OF FOOD PREMISES

The food premises visited by sanitary inspectors for the purpose of securing compliance with the requirements of Section 13 of the Food and Drugs Act, 1938 and the Byelaws made under Section 15 of the Act are as follows:—

Bakehouses	208
Licensed premises	1,131
Fish frying establishments	431
Industrial canteens	173
School Kitchens, etc.	238
Hospital Kitchens	25

FOOD FACTORIES

Brewing and beer and mineral water bottling	47
Spice manufacturers	4
Bacon curing	11
Miscellaneous Food Products	25
Biscuit manufacturers	5
Jam manufacturers	4
Fruit (cleaning and packing)	10
Custard and meal powder manufacturers	4
Millers (Flour, Rice, etc.)	21
Pickles	3
Sweet confectioners	15
Coffee and Tea (packing, etc.)	20
Sugar manufacturers	10
Tripe dressers	8
Edible fat manufacturers	3
Total	2,396

RETAIL FOOD SHOPS

Bread and Confectionery	455
Butchers	621
Cafes, Snack Bars, etc.	287
Cooked Meats	53
Dairies	205
Farm produce	7
Fishmongers and poulterers	237
General	1,268
Greengrocers	799
Grocery and Provisions	862
Herbalists	20
Off-licensed premises	94
Sweets and Minerals	1,162
Tea merchants	2
Tripe dealers	3
Total	6,075

TABLE 49.

PARTICULARS OF INSPECTIONS.

APPROXIMATE NUMBER OF SHOPS IN THE CITY—16,850.

Inspection.

A.	Retail shops visited	3,987
	Retail shops re-visited	3,940
	Assistants employed.	
	Young Persons—Male	101
	Young Persons—Female ...	94
	Adults—Male	419
	Adults—Female	556
	Pet shops visited	150
	Pet shops re-visited	32
B.	Wholesale shops visited	141
	Wholesale shops re-visited ...	31
	Wholesale warehouses visited ...	2
	Wholesale warehouses re-visited	3
	Young persons employed.	
	Male	33
	Female	15
	Adults employed.	
	Male	176
	Female	73

Half-holiday Closing.

Visits to shops after 1 p.m. ...	30,806

Evening Closing.

Visits to shops—	
After 7 p.m.	8,397
After 8 p.m.	9,986
After 9 p.m.	4,347
After 9.30 p.m.	1,883
After 10 p.m.	81

Sunday Closing.

Visits to shops on Sunday	2,125

Public Health Acts.

No. of nuisances reported	501
No. of nuisances abated	433

Contraventions.

	Reported.	Remedied.
Shops Act 1950.		
Half-holiday closing ...	64	64
Mixed trades notice ...	99	99
Closing notice (Alt. W.H.H.) ...	64	64
Assistants' Half-holiday	28	28
Assistants' half-holiday notice	187	181
Evening closing ...	17	17
Mixed trades notice ...	43	43
Hours of employment of young persons ...	2	2
Schedule...	6	6
Record of hours of employment of young persons	71	68
Abstract of provisions of 1950 Act (Forms H and J)	49	46
Notices as to seats for female assistants (Form K)	156	150
Other notices (A-Z) ...	6	6
Ventilation	2	1
Temperature	11	11
Sanitary conveniences ...	478	390
Lighting	7	7
Washing facilities ...	91	82
Facilities for taking meals	17	13
Closing of shops on Sunday	30	30
Mixed Shops' Notice (Form I)	192	192
Record of Sunday employment	84	84
Seats for female assistants	—	—
TOTALS ...	1,704	1,584

TABLE 50.

Factories Acts, 1937 and 1948.

Part I of the Act.

1. Inspections for purposes of provisions as to health (including inspections made by sanitary inspectors).

Premises. (1)	M/c. Line No. (2)	Number on Register (3)	Number of			M/c. Line No. (7)
			Inspections. (4)	Written Notices. (5)	Occupiers prosecuted. (6)	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	1	1,421	886	26	—	1
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authorities	2	3,754	5,664	246	—	2
(iii) Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises) ...	3	91	160	10	—	3
Total ...		5,266	6,710	282	—	

TABLE 51.

2. Cases in which DEFECTS were found. (If defects are discovered at the premises on two, three or more separate occasions they should be reckoned as two, three or more " cases ").

Particulars.	M/c. Line No.	Number of Cases in which Defects were found.				Number of Cases in which Prosecutions were instituted.	M/c. Line No.
		Found.	Remedied.	Referred To H.M. Inspector.	Referred By H.M. Inspector.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Want of cleanliness (S.1)	4	26	26	3	8	—	4
Overcrowding (S.2) ...	5	—	—	1	—	—	5
Unreasonable temperature (S.3)	6	3	3	—	1	—	6
Inadequate ventilation (S.4)	7	4	4	—	—	—	7
Ineffective drainage of floors (S.6)	8	3	3	—	—	—	8
Sanitary Conveniences (S.7)—							
(*a*) Insufficient ...	9	19	19	—	4	—	9
(*b*) Unsuitable or defective ...	10	243	243	—	18	—	10
(*c*) Not separate for sexes	11	9	9	—	2	—	11
Other offences against the Act (not including offences relating to outwork)	12	55	55	16	—	—	12
TOTAL ...	60	362	362	20	33	—	60

TABLE 52.

Part VIII of the Act.

Outwork.

(Sections 110 and 111.)

Nature of Work.	M/c. Line No.	Section 110		No. of prosecutions for failure to supply lists.	Section 111		Prosecutions.	M/c. Line No.
		No. of outworkers in August list required by Section 110(1)(*c*).	No. of cases of default in sending lists to the Council.		No. of instances of work in unwholesome premises.	Notices served.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Wearing apparel—Making, etc.	13	140	—	—	—	—	—	13
TOTAL	70	140	—	—	—	—	—	70

TABLE 53.

SUMMARY OF PROSECUTIONS (CASES HEARD) FOR THE YEAR 1955.

Act.	Section.	Informations.	Penalties.	Costs.	Orders.
			£ s. d.	s. d.	
Public Health Act, 1936	75	20	11 0 0	4 0	—
Public Health Act, 1936	94	133	162 10 0	5 0	77
Public Health Act, 1936	95	3	9 0 0	—	—
Public Health Act, 1936	154	2	—	—	—
Public Health Act, 1936	290 (6)	105	150 10 0	—	—
Liverpool Corporation Act, 1921	468	16	20 10 0	—	—
Liverpool Corporation Act, 1921	472	4	12 0 0	—	—
Liverpool Corporation Act, 1936 (Smoke Abatement)	85				
Shops Act, 1950—					
Evening Closing	—	1	10 0	—	—
Half Holiday	—	1	1 0 0	—	—
Sunday Trading	—	2	2 0 0	5 0	—
Food and Drugs Act, 1938 ...	13	15	38 0 0	—	—
Food and Drugs Act, 1938 ...	15 and Byelaws	6	24 0 0	—	—
Totals		308	431 0 0	14 0	77

TABLE 54.

RAT DESTRUCTION IN SEWERS.

PROGRESSIVE SUMMARY OF TREATMENTS.

Sewer manholes treated.	Initial Treatment 1953	Maintenance Treatments.			
		First Treatment 1954	Second Treatment 1954	First Treatment 1955	Second Treatment 1955
Total number pre-baited ...	16,378	15,756	13,326	13,224	13,523
Total number showing pre-bait takes	9,329	9,178	6,222	4,873	2,910
Total number showing complete pre-bait takes on one or both days	8,662	7,531	5,264	4,303	2,313
Total number poison baited	11,141	10,946	7,655	6,827	4,511

TABLE 55.

RAT DESTRUCTION IN SEWERS.

ANNUAL TEST BAITING.

Test Baiting Divisions.	Year 1953	Year 1954	Year 1955
Total number of manholes	6,337	8,753	13,731
Number of manholes tested	797	902	1,428
Number of manholes showing takes ...	68	75	114

TABLE 56.

SUMMARY OF RODENT INFESTATIONS AND DISINFESTATIONS OF BUILDINGS AND LANDS DURING THE YEAR 1955.

Description of Premises	Infestations				Reinfestations during the Year				Category		Total infestations and reinfestations	Total remedied
	Premises	Rats	Rats and Mice	Mice	Premises	Rats	Rats and Mice	Mice	Major	Minor		
Shops	599	145	9	445	46	8	—	41	—	648	648	665
Factories	333	139	29	165	53	24	3	28	1	387	388	354
Warehouses	349	231	34	84	34	23	4	11	5	382	387	361
Dwellinghouses	3,082	1,292	26	1,764	71	33	1	37	—	3,153	3,153	3,489
Other buildings and lands	897	375	36	486	72	14	5	57	1	972	973	925
Food premises (included in above)...	(747)	(254)	(24)	(469)	(65)	(21)	(8)	(40)	(5)	(811)	(816)	(750)
TOTAL	5,260	2,182	134	2,944	276	102	13	174	7	5,542	5,549	5,794

TABLE 57.

Smoke Abatement.

Particulars of Inspections.

No. of special complaints received during year	163
No. of factory chimneys observed following complaint	231
Total minutes of excess smoke	366
No. of routine observations	3,159
Total minutes of excess smoke	3,042
No. of ships observed following complaint	24
Total minutes of excess smoke	63
No. of routine observations on ships	1,271
Total minutes of excess smoke	3,637
No. of special visits	624
No. of premises re-visited	206
No. of incidental calls	436
No. of advisory visits	292
Total number of observations	4,685
Total number of visits	1,558

Contraventions. Public Health Act, 1936.

No. of Section 102 notices to occupier	81
No. of Section 103 abatement notices	41
No. of warning letters to occupiers	39

Liverpool Corporation Act, 1921.

Section 472 excess smoke	126
No. of letters to owners	99
No. of informations laid	4

Summary of Prosecutions.

Act.	Section.	No. of informations.	Penalties.	Costs.
			£ s. d.	£ s. d.
Liverpool Corporation Act, 1921 ...	472	4	12 0 0	Nil

TABLE 58.

Smoke Abatement.

Improvements.

Change from solid fuel to gas	1
Change from solid fuel to oil	14
Change from bituminous coal to coke	11
Change from wood refuse to coke only	1
No. of chimneys raised	6
Change from hand firing to mechanical stoking	13
Improved mechanical stokers fitted	6
Increased boiler power/or load reduced	10
Reconstructed or improved furnaces	13
Constructed or improved incinerators	5
Smoke indicators fitted	6
No. of mirrors fitted	2
Carbon dioxide recorders installed	1
No. of steam meters fixed	1
Time extraction plant fitted	4
Inefficient plant dismantled	2
No. of chimneys demolished	1

Requests for Advice.

(1) Boiler installations	11
(2) Incinerators	20

Progress in Proposed Smokeless Area.

No. of open fires abolished	61
No. of gas pokers fitted	9
Change from solid fuel to electricity	34
Change from solid fuel to gas	14
Change from solid fuel to oil	3
Change from bituminous coal to coke	1

TABLE 59.

METEOROLOGICAL SUMMARY, 1955.

Recorded at Liverpool Observatory and Tidal Institute, Bidston.

Month	Mean Barometric Pressure in.		Temperature °F				Rainfall in.		No. of days with rain	Sunshine hrs.	
			Mean		Mean Max.	Mean Min.					
	1955	Normal	1955	Normal	1955	1955	1955	Normal	1955	1955	Normal
January ...	29·77	29·92	38·1	39·7	41·8	33·9	1·84	2·30	14	41·9	51·2
February ...	29·72	29·93	35·1	40·2	38·4	31·5	1·84	1·78	16	77·8	66·1
March ...	30·10	29·91	38·3	42·3	42·7	33·2	1·78	1·76	9	166·5	111·7
April	30·17	29·92	48·3	46·7	53·8	42·7	1·52	1·64	11	161·5	162·2
May	29·90	29·97	49·3	52·1	54·7	43·9	2·58	2·06	21	219·0	200·5
June ...	29·99	29·99	55·4	57·3	61·5	50·0	3·09	2·05	15	162·4	205·9
July	30·14	29·95	62·1	60·2	68·5	56·4	0·57	2·66	3	*298·8	184·7
August ...	30·11	29·92	63·7	59·9	69·9	57·6	1·54	3·08	8	228·3	169·0
September ...	29·98	29·97	57·3	56·3	62·7	52·5	1·82	2·69	13	154·5	132·1
October ...	29·97	29·89	49·8	50·0	54·8	45·6	2·01	3·19	17	†129·4	96·1
November ...	30·08	29·88	45·6	44·3	49·2	41·9	1·29	2·71	11	59·5	59·4
December ...	29·72	29·87	43·3	41·0	47·3	38·3	3·00	2·67	18	44·9	41·5
Year ...	29·97	29·93	48·9	49·2	53·8	44·0	22·88	28·59	156	1744·5	1480·4

* Sunniest month on record.

† Sunniest October on record.

The normal is the long period average for that time of year.

TABLE 60.

MISCELLANEOUS STATISTICS.

Area of City	27,818 acres
No. of inhabited houses at 31st December, 1955...	205,659
No. of structurally separate dwellings occupied (1951 Census)...	195,981
Rateable Value :	
1st April, 1955	£7,074,865
31st December, 1955	£7,169,634
Sum represented by a Penny Rate :	
Actual 1954/55	£28,385
Estimate 1955/56	£29,262

TABLE 61.

TABLE SHOWING POPULATION, BIRTH-RATES, DEATH-RATES, INFANT AND MATERNAL MORTALITY RATES, ETC., OF A NUMBER OF THE LARGER AUTHORITIES FOR THE YEAR 1955.

Name of Authority	Birmingham	Bradford	Bristol	Cardiff	Kingston-upon-Hull	Leeds	Leicester	Liverpool	Manchester	Newcastle-upon-Tyne	Nottingham	Sheffield
Registrar General's estimated population for 1955	1,111,700	286,400	442,500	248,400	299,600	507,400	286,300	779,900	692,200	281,000	312,000	501,100
Comparability factor—												
(a) Births	0.94	1.00	0.99	0.94	0.96	0.98	0.99	0.92	0.95	0.95	0.95	0.99
(b) Deaths	1.14	0.97	0.96	1.07	1.15	1.08	1.02	1.20	1.13	1.10	1.09	1.06
Crude birth rate per 1,000 population	16.01	16.20	14.76	16.85	18.07	15.0	14.80	19.6	16.91	16.74	15.67	13.48
Birth rate as adjusted by factor...	15.05	16.20	14.61	15.84	17.3	14.7	14.65	18.0	16.06	15.91	14.89	13.35
Crude death rate per 1,000 population	11.27	14.01	11.77	11.39	10.8	11.5	11.95	11.9	12.68	12.37	11.28	11.84
Death rate as adjusted by factor	12.85	13.59	11.30	12.19	12.4	12.4	12.19	14.3	14.33	13.61	12.30	12.55
Infant mortality rate per 1,000 live births	23.71	28.58	19.14	33.21	26.4	25.4	23.37	30	28.37	33.58	28.00	23.68
Neonatal mortality rate per 1,000 live births	16.24	17.81	12.71	19.34	15.7	17.8	16.76	20.3	18.37	23.17	16.76	16.73
Stillbirth rate per 1,000 total births	23.00	20.04	20.25	30.12	25.04	22.2	20.80	26.0	26.45	23.05	24.91	25.39
Maternal mortality rate per 1,000 total births	0.33	0.43	0.30	0.46	1.08	0.51	0.23	0.57	0.75	1.45	0.60	—
Tuberculosis rates per 1,000 population												
(a) Primary notifications—												
Respiratory	1.03	0.89	0.786	1.19	1.02	0.96	0.733	1.39	0.96	1.33	1.14	0.91
Non-respiratory...	0.11	0.09	0.104	0.18	0.09	0.17	0.091	0.15	0.11	0.24	0.10	0.10
(b) Deaths—Respiratory	0.19	0.10	0.118	0.19	0.19	0.13	0.199	0.24	0.19	0.17	0.17	0.216
Non-respiratory...	0.01	0.01	0.016	0.012	0.013	0.01	0.007	0.02	0.02	0.014	0.01	0.022
Death Rates per 1,000 population from—												
Cancer (all forms)	2.06	2.37	1.993	2.07	2.04	2.11	1.890	2.05	2.28	2.27	2.02	2.16
Cancer of Lungs and Bronchus	0.44	0.46	0.371	0.399	0.45	0.54	0.311	0.52	0.56	0.54	0.43	0.48
Meningococcal infections	0.00	0.01	—	0.016	0.006	0.01	—	0.00	0.004	0.007	0.006	0.00
Whooping Cough	0.00	—	0.002	0.004	0.006	—	0.0035	0.00	0.003	—	0.006	0.00
Influenza	0.08	0.06	0.063	0.036	0.036	0.04	0.087	0.06	0.049	0.053	0.048	0.03
Measles	0.01	0.01	0.005	0.004	0.003	0.01	—	0.00	0.003	—	0.016	0.01
Acute Poliomyelitis and Encephalitis	0.00	0.01	0.002	0.008	0.003	0.00	—	0.00	0.001	0.007	0.003	0.01
Diarrhoea (under 2 years)	0.01	0.01	0.007	0.020	0.01	0.02	0.007	0.02	0.01	0.011	0.016	0.01
Diarrhoea (under 2 years) (per 1,000 live births)	0.85	0.66	0.46	1.19	0.55	1.18	0.472	1.24	0.60	0.637	1.02	0.74

TABLE 62.

NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS) DURING THE YEAR 1955.

Disease.	Number of Cases Notified.													Total Deaths
	At all Ages.	At Ages—Years												
		Under 1	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65—	
Scarlet Fever	528	1	12	41	53	51	317	36	11	6	—	—	—	—
Diphtheria	1	—	—	—	—	—	—	1	—	—	—	—	—	1
Enteric Fever (including Para-typhoid)	5	—	—	—	—	—	—	2	—	1	—	2	—	—
Puerperal Pyrexia	808	—	—	—	—	—	—	—	102	623	80	3	—	—
Pneumonia	517	49	47	37	22	25	54	15	11	57	30	102	68	125
Cerebro-spinal Fever	31	15	5	1	2	1	1	2	2	2	—	—	—	2
Poliomyelitis (Paralytic)	38	3	8	3	4	1	10	5	1	2	1	—	—	1
Poliomyelitis (Non-paralytic)	8	—	1	—	1	—	2	2	—	2	—	—	—	—
Dysentery	920	88	137	124	98	74	189	48	16	60	19	20	47	1
Ophthalmia Neonatorum	106	106	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	67	—	—	—	—	—	—	3	4	11	8	28	13	1
Malaria	10	—	—	—	—	—	—	—	1	4	3	2	—	2
Measles	5998	415	874	996	990	800	1879	25	12	5	2	—	—	2
Whooping Cough	2490	268	349	342	408	323	765	30	3	2	—	—	—	4
Food Poisoning	544	36	43	22	8	10	71	87	50	57	33	73	54	2
Totals	12071	981	1476	1566	1584	1285	3288	256	213	832	176	230	182	141

CITY OF LIVERPOOL.

TABLE 63.

Infant Mortality during the year 1955.

Net deaths from stated causes at various ages under One Year.

CAUSE OF DEATH	Under 1 day	1 to 2 days	2 to 3 days	3 to 4 days	4 to 5 days	5 to 6 days	6 to 7 days	1 to 2 weeks	2 to 3 weeks	3 to 4 weeks	Total deaths under 28 days	28 days to 2 months	2 to 3 months	3 to 4 months	4 to 5 months	5 to 6 months	6 to 7 months	7 to 8 months	8 to 9 months	9 to 10 months	10 to 11 months	11 to 12 months	Total deaths under 1 year
Tuberculosis of Respiratory System	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Meninges, etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Intestines, etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
,, Other Organs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	1	—	3
Meningococcal Infections	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chickenpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Psychosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1
Meningitis (non-tubercular)	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Influenza	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	2
Pneumonia	—	—	—	—	—	—	—	—	—	—	—	5	11	11	2	6	—	5	2	—	1	1	44
Bronchitis	—	—	—	—	—	—	—	—	—	—	—	—	7	6	3	2	—	1	—	—	1	1	21
Enteritis	—	—	—	—	—	—	—	—	—	—	—	4	1	2	4	1	1	—	3	—	2	—	18
Malformations	17	3	4	2	2	3	2	8	4	3	48	6	7	4	4	3	1	1	3	1	1	—	79
Injury at Birth	33	8	8	3	4	—	1	2	—	—	59	—	—	—	—	—	—	—	—	—	—	—	59
Infections of Newborn	3	2	1	4	3	1	1	8	3	4	30	—	—	—	—	—	—	—	—	—	—	—	30
Other Diseases of Early Infancy	107	25	17	3	6	3	1	3	—	1	166	—	1	—	—	—	—	—	—	—	—	—	167
Other Causes	4	—	—	1	1	—	—	—	—	1	7	5	5	3	5	4	—	2	2	1	—	1	35
Totals	164	38	30	13	16	7	5	21	7	9	310	21	32	28	18	17	3	11	10	2	7	3	462

Net Births in the year { **Legitimate** ... 14,483; **Illegitimate** ... 785 }

Net Deaths in the year of { **Legitimate Infants** 423; **Illegitimate Infants** 39 }

TABLE 64.

CITY OF LIVERPOOL.

DEATHS REGISTERED DURING THE YEAR 1955

CAUSES OF DEATH	SEX		AGE—BELOW																							TOTALS.
	Males.	Females.	1	2	3	4	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	Over 90	
ALL CAUSES	4853	4436	462	27	20	16	8	41	20	35	43	75	87	106	179	307	486	673	873	1167	1357	1427	1131	574	175	9289
I.—Infectious and Parasitic Diseases	171	98	11	3	3	1	2	4	3	...	5	16	24	12	19	23	32	27	23	19	20	18	2	1	1	269
II.—Neoplasms	894	733	3	2	2	1	...	8	1	2	4	12	13	27	50	94	153	221	218	237	230	204	95	46	4	1627
III.—Allergic, Metabolic Diseases, etc.	41	75	...	1	...	...	...	1	1	...	...	2	1	2	8	5	5	14	16	21	24	11	2	2	...	116
IV.—Diseases of the Blood	14	42	...	...	...	...	...	1	...	...	1	1	...	...	2	...	2	...	2	12	17	9	5	3	1	56
V.—Mental, and Psychoneurotic Diseases	10	58	1	...	...	1	...	...	...	...	...	1	...	...	...	...	1	3	2	7	12	11	17	10	2	68
VI.—Diseases of Nervous System	494	588	6	...	2	2	...	1	1	3	3	6	4	9	9	23	48	61	105	147	190	216	151	80	15	1082
VII.—Diseases of Circulatory System	1653	1516	1	...	1	...	...	...	1	6	8	13	21	28	49	78	137	206	286	409	488	585	489	268	95	3169
VIII.—Diseases of Respiratory System	869	720	68	11	2	4	2	3	1	6	2	3	6	9	18	36	62	82	143	220	273	262	247	102	27	1589
IX.—Diseases of Digestive System	143	102	23	3	...	1	1	1	2	1	...	1	1	2	5	12	11	22	22	39	37	27	24	10	...	245
X.—Diseases of Genito-urinary System	109	68	1	...	...	...	...	1	...	1	3	4	4	4	2	11	7	13	11	23	27	27	27	8	3	177
XI.—Diseases of Pregnancy	...	9	...	...	...	...	...	...	...	...	2	3	1	2	1	...	...	...	...	...	...	...	...	...	...	9
XII.—Diseases of Skin	2	7	...	...	1	...	...	...	...	...	1	...	...	1	...	3	...	...	1	...	...	...	2	...	...	9
XIII.—Diseases of Bones	13	37	...	1	...	...	...	...	1	...	...	...	1	...	...	2	1	2	8	7	7	9	6	4	1	50
XIV.—Congenital Malformations	51	55	79	2	3	1	2	2	...	2	3	1	...	3	2	...	3	...	...	1	1	1	...	...	...	106
XV.—Diseases of Early Infancy	151	105	256	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	256
XVI.—Senility and Ill-defined Diseases	30	82	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	2	...	4	15	36	31	21	112
XVII.—Deaths from Violence	208	141	12	4	6	5	1	19	9	13	11	12	11	7	14	19	24	22	34	25	27	32	28	9	5	349
Class 1.—Tuberculosis of Respiratory System	121	64	...	...	...	...	...	...	2	...	3	14	20	9	17	19	22	21	18	10	17	10	2	1	...	185
Tuberculosis of Meninges, etc.	3	3	...	1	2	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Tuberculosis of Intestines, etc.	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Tuberculosis of Other Organs	7	5	...	...	...	...	1	...	...	...	1	1	1	...	2	1	3	...	1	1	...	...	...	...	...	12
Syphilis	20	3	...	...	...	...	...	...	...	...	...	...	...	...	...	2	5	4	2	5	2	3	...	...	...	23
Typhoid Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Diphtheria	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Whooping Cough	1	3	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Meningococcal Infections	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Acute Poliomyelitis	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Measles	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Other Infectious Diseases	18	13	6	...	...	1	...	2	...	...	1	1	3	2	...	1	2	2	2	3	1	3	...	...	1	31
Class 2.—Malignant Neoplasm of Buc. Cavity	24	8	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	4	4	3	9	5	2	2	1	32
Malignant Neoplasm of Digestive Syst.	326	336	...	...	...	...	...	...	...	...	1	1	2	9	20	22	43	84	88	103	101	111	53	23	1	662
Malignant Neoplasm of Respiratory Syst.	348	60	...	...	...	...	...	1	...	1	...	2	1	2	10	27	45	77	69	80	51	28	11	3	...	408
Malignant Neoplasm of Breast	1	116	...	...	...	...	...	...	...	...	...	2	1	...	3	11	18	16	16	9	15	11	8	5	2	117
Malignant Neoplasm of Female G. Organs	...	110	...	...	...	...	...	...	...	...	...	...	1	7	3	18	15	13	12	14	10	9	5	3	...	110
Malignant Neoplasm of Other Organs	159	76	3	...	1	1	...	3	1	...	1	5	4	4	9	13	26	21	21	22	37	37	16	10	...	235
Leukaemia	21	16	...	1	...	...	...	4	...	...	...	1	3	3	2	1	3	3	4	5	5	2	...	...	...	37
Benign Neoplasms	15	11	...	1	1	...	...	...	...	...	2	1	1	2	2	2	3	3	4	1	2	1	...	...	...	26
Class 3.—Thyrotoxicosis	2	21	...	...	...	...	...	...	1	...	...	...	1	1	1	...	1	2	3	5	5	2	1	...	...	23
Diabetes mellitus	18	32	...	...	...	...	...	1	...	...	...	...	...	...	2	1	1	4	8	13	11	6	1	2	...	50
Other Allergic diseases, etc.	21	22	...	1	...	...	...	...	...	...	...	2	...	1	5	4	3	8	5	3	8	3	...	...	...	43
Class 4.—Anaemias	13	35	...	...	...	...	...	1	...	...	...	...	...	...	1	...	2	...	2	12	15	8	3	3	1	48
Other Diseases of Blood	1	7	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	2	1	2	...	...	8
Class 5.—Psychoses and Psychoneurotic Disorders	10	58	1	...	...	1	...	...	...	...	...	1	...	...	...	...	1	3	2	7	12	11	17	10	2	68
Class 6.—Vascular Lesions of Central Nervous Syst.	451	533	...	...	...	...	...	...	...	...	2	1	3	4	6	17	42	51	96	133	181	208	148	77	15	984
Meningitis	3	2	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1	...	...	...	...	5
Epilepsy	8	10	...	...	1	1	...	1	1	...	...	2	...	3	...	2	...	2	2	1	1	1	...	...	...	18
Otitis Media and Mastoiditis	4	5	3	...	...	...	...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	9
Other Diseases of Nervous System	28	38	2	...	1	1	...	...	...	...	1	3	...	2	3	4	5	8	6	12	7	6	3	2	...	66
Class 7.—Rheumatic Fever	1	7	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2	...	2	...	...	...	...	...	...	8
Chronic Rheumatic Heart Disease	59	100	...	...	...	...	...	...	1	4	5	9	9	12	15	15	21	16	18	13	9	4	4	4	...	159
Arteriosclerotic, etc. Heart Disease	1235	1004	...	...	...	...	...	...	...	...	...	1	5	11	23	45	93	141	207	281	344	429	361	213	85	2239
Other Diseases of Heart	131	119	...	...	1	...	...	...	...	2	2	1	2	...	4	9	10	14	20	38	47	40	42	16	2	250
Hypertensive Disease	183	250	...	...	...	...	...	...	...	...	...	1	3	2	3	7	9	26	34	69	74	95	72	32	6	433
Other Diseases of Circulatory System	44	36	1	...	...	...	...	...	...	...	1	1	1	2	3	1	2	9	5	8	14	17	10	3	2	80
Class 8.—Influenza	17	30	2	...	...	...	...	...	...	1	1	...	...	...	2	2	4	5	2	4	8	6	6	4	...	47
Bronchopneumonia	252	331	40	7	2	4	...	1	...	2	...	2	2	2	5	7	13	13	33	61	94	112	115	56	12	583
Pneumonia	36	42	4	1	...	...	...	...	...	2	...	...	1	...	2	4	2	4	6	10	11	17	12	2	...	78
Bronchitis	504	275	21	3	...	...	...	...	...	1	1	...	...	2	4	18	35	49	91	136	142	120	104	37	15	779
Pleurisy	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	3
Other Respiratory Diseases	58	41	...	...	...	...	2	2	1	...	...	1	3	5	5	4	8	11	11	9	17	7	10	3	...	99
Class 9.—Ulcer of Stomach	49	23	...	...	...	...	...	...	...	...	...	...	1	1	3	3	4	8	8	10	19	6	7	2	...	72
Gastritis	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	3
Appendicitis	8	3	1	...	...	...	...	1	1	1	...	...	...	...	1	1	...	...	...	1	1	1	1	1	...	11
Intestinal Obstruction and Hernia	28	18	2	...	...	...	...	...	1	...	...	...	...	...	...	3	1	5	2	6	5	9	8	4	...	46
Gastro-Enteritis	20	14	18	1	...	1	...	...	...	...	...	...	...	...	1	...	...	2	1	1	4	4	1	...	...	34
Cirrhosis of Liver	8	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	2	1	3	...	...	...	...	...	10
Cholelithiasis	5	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	2	4	2	1	2	...	16
Other Diseases of Digestive System	24	29	2	2	...	...	1	...	...	...	...	1	...	1	...	4	3	4	6	15	3	4	6	1	...	53
Class 10.—Acute and Chronic Nephritis	33	30	...	...	...	...	...	1	...	1	2	3	2	2	2	4	6	8	4	12	4	6	5	...	1	63
Other Diseases of Kidneys	27	25	1	...	...	...	...	...	...	...	1	1	2	...	...	3	1	2	4	6	9	7	10	3	2	52
Hyperplasia of Prostate	41	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	12	10	12	5	...	41
Other Diseases of Genito-Urinary System	8	13	...	...	...	...	...	...	...	...	...	...	...	2	...	4	...	3	2	4	2	4	...	...	...	21
Class 11.—Sepsis of Pregnancy	...	5	...	...	...	...	...	...	...	...	1	2	...	2	...	...	...	...	...	...	...	...	...	...	...	5
Other Diseases of Pregnancy	...	4	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...	...	...	...	...	...	...	...	4
Class 12.—Diseases of Skin	2	7	...	...	1	...	...	...	...	...	1	...	...	1	...	3	...	...	1	...	...	...	2	...	...	9
Class 13.—Diseases of Bones	11	34	...	1	...	...	...	...	...	...	...	...	1	...	...	2	1	1	8	6	6	9	5	4	1	45
Other Diseases of Organs of Movement	2	3	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	1	...	1	...	...	5
Class 14.—Congenital Malformations	51	55	79	2	3	1	2	2	...	2	3	1	...	3	2	...	3	...	...	1	1	1	...	...	...	106
Class 15.—Birth Injuries	39	20	59	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	59
Infections of Newborn	17	13	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30
Other Diseases of Early Infancy	95	72	167	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	167
Class 16.—Senility and Ill-Defined Diseases	30	82	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	2	...	4	15	36	31	21	112
Class 17.—Road Accidents	59	31	...	1	1	...	1	11	7	6	6	5	4	2	4	4	4	5	7	3	8	5	5	...	1	90
Other Violent Causes	98	84	12	3	5	5	...	8	2	5	2	5	3	1	6	7	10	11	15	13	15	19	22	9	4	182
Suicide	51	26	...	...	...	...	...	...	...	2	3	2	4	4	4	8	10	6	12	9	4	8	1	...	...	77
TOTAL MALES	4853	...	271	7	8	6	3	24	12	21	25	39	47	59	105	192	303	441	551	677	693	674	465	199	31	4853
TOTAL FEMALES	...	4436	191	20	12	10	5	17	8	14	18	36	40	47	74	115	183	232	322	490	664	753	666	375	144	4436